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Received *Feb. 20, 1901*

x **REPORTS OF THE TAFT PHILIPPINE COMMISSION.** *50*

MESSAGE

FROM THE

PRESIDENT OF THE UNITED STATES,

TRANSMITTING

**A REPORT OF THE SECRETARY OF WAR, CONTAINING THE
REPORTS OF THE TAFT COMMISSION, ITS SEVERAL
ACTS OF LEGISLATION, AND OTHER IMPORTANT
INFORMATION RELATING TO THE CON-
DITIONS AND IMMEDIATE WANTS
OF THE PHILIPPINE ISLANDS.**

**WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1901.**

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Rec. Feb. 20, 1901.

To the Senate and House of Representatives:

For the information of the Congress, and with a view to such action on its part as it may deem wise and appropriate, I transmit a report of the Secretary of War made to me under date of January 24, 1901, containing the reports of the Taft Commission, its several acts of legislation, and other important information relating to the conditions and immediate wants of the Philippine Islands.

I earnestly recommend legislation under which the government of the islands may have authority to assist in their peaceful industrial development in the directions indicated by the Secretary of War.

WILLIAM MCKINLEY.

EXECUTIVE MANSION,
January 25, 1901.

REPORT.

JANUARY 24, 1901.

To the PRESIDENT:

I beg leave to supplement my annual report of November 30, 1900, by transmitting a report made by the Philippine Commission on that date, but only recently received at the War Department. At the same time I wish to call attention to some conditions existing in the Philippine Islands which indicate that the development of that country along the lines of peaceful industrial progress now requires the exercise of powers of civil government not vested in this Department, or in you as military commander, but requiring a grant of authority from the Congress.

1. The Commission gives a gratifying account of the progress made in the pacification of the country and the gradual subsidence of guerilla warfare. Information received subsequent to the date of the report confirms the favorable anticipations of the Commission. A personal letter received by me from Judge Taft, dated December 14, 1900, says:

Since writing you, about 3,000 insurgents in Ilocos Norte have surrendered, and 10,000 persons who were not well affected toward us in Panay have taken the oath of allegiance. I have received two papers from native priests, 18 in number, and I am told that there will be a great many other papers signed by a great many more native priests, tendering their allegiance to the United States, and promising fidelity without mental reserve. The native priests are those who have held out longest in favor of the insurgents and against the Americans, and I deem this action as of great importance. The army is hitting small but hard knocks against the insurgents everywhere. Since the election there has been a great falling off in the activity of the insurgents in aggressiveness and their sole activity has been displayed in avoiding the fights which small detachments of our troops have brought about.

On the 2d of January the Commission as a body reenforced the views contained in their report by the following dispatch from Manila:

Root, Secretary of War, Washington:

If you approve, ask transmission to proper Senators and Representatives of following: Passage of Spooner bill at present session greatly needed to secure best result from improving conditions. Until its passage no purely central civil government can be established, no public franchises of any kind granted, and no substantial investment of private capital in internal improvements possible. All are needed as most important step in complete pacification. Strong peace party organized with defined purpose of securing civil government under United States and reasonably expect civil government and relief for inevitable but annoying restraints of military

rule long before subject can be taken up by new Congress. Time near at hand in our opinion when disturbances existing can better be suppressed by native police of a civil government with army as auxiliary force than by continuance of complete military control. Power to make change should be put in hands of President to act promptly when time arrives to give Filipino people an object lesson in advantages of peace. Quasi civil government under way—power most restricted and unsatisfying. Commission embarrassed in securing good material for judicial and other service by necessarily provisional character of military government and uncertainty of tenure.

Sale of public lands and allowance of mining claims impossible until Spooner bill. Hundreds of American miners on ground awaiting law to perfect claims. More coming. Good element in pacification. Urgently recommend amendment Spooner bill so that its operation be not postponed until complete suppression of all insurrection, but only until in President's judgment civil government may be safely established. Conditions rapidly improving to point where civil government with aid of army will be more efficient to secure peace than military control.

COMMISSION.

A dispatch from Judge Taft, dated January 9, 1901, says:

Conditions rapidly improving. Rifles, officers, privates are being captured or surrendered daily in considerable numbers in north and south Luzon. Same conditions in Panay, where more than 35,000 have taken oath of allegiance. Insurgent forces completely scattered and leader, Delgado, negotiating for surrender. Work in Samar slower, because of Luchan's long uncontested occupation of interior and swollen streams early in campaign. Campaign in Samar has driven bands into Leyte, producing disturbance, but information is that condition there favorable. Federal party for peace; direct result of election. Well organized and rapidly increasing in Manila, preparing to extend organization to many provinces on pressing and numerous invitations from leading citizens.

The report shows that the islands are estimated to contain about 73,000,000 acres of land, of which less than 5,000,000 are held in private ownership, leaving in public lands over 68,000,000 acres; that this land is for the most part exceedingly fertile, well watered, adapted to the raising of a great variety of useful crops, much of it covered by the most valuable timber, with extensive deposits of gold, of copper, of high-grade iron, and of excellent coal; that more than a thousand mining prospectors, chiefly American, are already scattered throughout the islands waiting for the enactment of some law under which they may acquire rights to mining claims covering their discoveries of mineral; that the public lands have never been surveyed, and no facilities have been afforded for the Filipinos to acquire title, and that from two to four hundred thousand of the natives are now living as squatters on these lands waiting for some homestead or settlers' law under which they may become owners of the land they till, or still other lands; that capital is waiting ready to inaugurate the enterprises which shall develop this vast natural wealth, but there is no authority under which railroads or other means of communication can be constructed to get the products of the land to the market; that the building of 55 miles of railroad already surveyed would throw open to the inhabitants of the islands as an unsurpassed health resort the

high table-land of Benguet in northern Luzon, free from tropical vegetation, with forests of pine, and with the cool and invigorating climate of the northern temperate zone; but there is no law under which the railroad can be built; that under all its disadvantages business has increased and the customs receipts are more than double the amount collected by the Spanish Government from the same source, but that business is hampered and endangered by the scarcity of currency, and there is no law under which currency can be supplied from either public or private source. The army has brought the Philippines to the point where they offer a ready and attractive field for investment and enterprise, but to make this possible there must be mining laws, homestead and land laws, general transportation laws, and banking and currency laws.

Such laws the military government can not supply. Broad and peremptory as are its powers for the time, it is temporary in its character, and can not project its authority into the future. It can not give title to the settler or the miner, or corporate rights to the bank or the railroad.

The great agency to bring industrial activity and awakened enterprise and prosperity and contentment to the country of the Philippines must be, not a military government, but the same kind of individual enterprise which has built up our own country. With increased activity of individual enterprise and business will come the greater revenues necessary for the performance of the proper duties of civil government, for harbor improvements and paved and sewered streets and passable highways and adequate schools and effective police. It is to the exhibition of such manifest results of good government that we must look as the chief means of convincing the people of the Philippine Islands that our professions of interest in their welfare are sincere.

2. The section of the report on the liquor traffic in Manila indicates that the powers of the Commission are ample to deal with that subject; that they have devoted great attention to it, and that the difficulties which they experience are the same as those which confront Congress in governing the city of Washington and our State legislatures in dealing with the same subject, while the success which they have attained will compare favorably with the results here. Many false and misleading statements have been made regarding the use of intoxicating liquors in Manila. The fact is that this traffic is more rigidly and effectively regulated and kept within bounds in the city of Manila than in any city of similar or greater size in the United States. A strict high-license law is enforced, under which the native saloons or wine shops have been reduced from 4,000 at the time of American occupation to 400 at the present time, and the saloons selling American liquors, including hotels and restaurants, have been reduced from 224 in February, 1900, to 105 at the date of this report and to 88 at the

present time. Of these, but 48 are permitted to sell spirituous liquors. All of these saloons are closed at half past 8 in the evening, and are prevented from making sales until the following day, and all are closed and prevented from selling on Sundays.

Manila has a population of over 400,000, and as against her 400 native and 88 foreign saloons for that population we have in this country the cities of—

	Popula- tion.	Saloon
Washington.....	278,718	518
Cleveland.....	381,768	1,868
Cincinnati.....	325,902	1,727
New Orleans.....	287,104	1,370
Milwaukee.....	285,315	1,747
San Francisco.....	342,782	3,007
St. Louis.....	575,238	2,060
Baltimore.....	508,957	1,968
Boston.....	560,892	799
Philadelphia.....	1,293,697	1,709
Chicago.....	1,698,575	6,460
New York.....	3,487,202	10,832

Since the date of the Commission's report further regulations have been adopted by them, limiting the portions of the city in which the traffic is permitted, and I am satisfied that they are dealing with the subject with wisdom, firmness, and a full knowledge of the conditions. In order to bring our information down to the present time, I have recently cabled inquiries to the president of the commission and the military governor, which, together with their answers, are appended hereto.

3. Acting upon that clause of your instructions which vests in the Philippine Commission authority to exercise, subject to your approval through the War Department, that part of your military authority which is legislative in its character, the Commission has adopted regular methods of legislative procedure, and regulations of a general civil character instead of being in the form of military orders now receive a form corresponding to their true character, of legislative enactments. The Commission transmit with their report the regulations, 47 in number, which they had adopted prior to the 12th of November, and to those I add from the files of the War Department 8 additional enactments, numbered 48 to 55, inclusive, received by the mail following the report. I venture to express the hope that an examination of these acts, as well as the reading of the report, will carry to your mind, as it has to mine, the conviction that the commission are proceeding in accordance with the high spirit of your instructions, and with zeal and discretion are pressing forward with all practicable speed the establishment of civil government in conformity to American institutions, and in fulfillment of our duty to the people of the Philippine Islands.

Very respectfully,

ELIHU ROOT,
Secretary of War.

[War Department cablegram.]

JANUARY 15, 1901.

TAFT, Manila:

Cable answer following questions: What is present condition Manila as to use of intoxicating liquors, drunkenness, and disorder? How does it compare with principal American cities? Do natives frequent American saloons, or drink American liquors? How much drunkenness among American soldiers? Are houses of prostitution licensed, protected, or in any way encouraged by authorities?

Root, *Secretary War.*

[Cablegram received in cipher.]

MANILA, *January 17, 1901.*Root, *Secretary of War, Washington, D. C.:*

With reference to your telegram of the 15th: First. Very good. Second. Better than any American city of same size. Third. Practically not at all. Fourth. Considerable. Much more conspicuous than at home, because several barracks near heart of city and frequented saloons on narrow thoroughfares. New license law passed to obstruction to travel by banishing saloons to places less accessible and annoying to general public. Informed by Army authorities that actual drunkenness not much, if any, greater than at home. Absence of home influence and lack of usual amusements would naturally increase it. Marked improvement in this regard since improved political condition in city has permitted more attention to the subject.

Fifth. No; but true that in November, 1898, spread of venereal diseases among soldiers led military authorities, in order to maintain effectiveness of army, to subject known prostitutes to certified examination and confinement of diseased in special hospital, expense of which paid from fund in custody of army officer derived solely from fees charged for examination, of 50 cents to \$2, according to place of examination. System has greatly reduced percentage of disability from this cause. Purely army police measure, outside our jurisdiction; military necessity. Result better than futile attempt at total suppression in Oriental city of 300,000, producing greater evil. Prostitutes known not permitted to land. Number deported. General moral condition of city greatly maligned. Crimes of violence now comparatively few. Gambling greatly decreased. Native vino shops in Manila in August, 1898, 4,000; now reduced to 400. American saloons, including hotels and restaurants, reduced from 224 in February, 1900, to 88, now; of these only 48 licensed to sell spirituous liquors.

COMMISSION.

[Cablegram.]

ADJUTANT-GENERAL'S OFFICE,
Washington, January 16, 1901.

MACARTHUR, Manila:

Telegraph the condition of army, Manila and elsewhere Philippine Islands, with reference to drunkenness and use intoxicating liquors. Are houses prostitution licensed, protected, or in any way encouraged by military authorities?

CORBIN.

MANILA. (Received January 17, 1901—12.15 a. m.)

ADJUTANT-GENERAL, *Washington:*

With reference to your telegram of 16th, drunkenness this army no more noticeable here than in garrisons United States. Considering whole force as unit, probably very much less. In Manila drunken men very noticeable; effect one drunkard in public place creates impression among citizens of extensive disorders throughout whole force, which is not case. Army in splendid discipline, high state efficiency, doing hardest kind service, most faithful inspiring manner. Houses prostitution not licensed, protected, encouraged.

MACARTHUR.

REPORT
OF THE
UNITED STATES PHILIPPINE COMMISSION.

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REPORT OF THE UNITED STATES PHILIPPINE COMMISSION.

MANILA, *November 30, 1900.*

THE SECRETARY OF WAR,
Washington, D. C.

SIR: The United States Philippine Commission begs to submit its report, as follows:

The Commission arrived in Manila on June 3 last, was courteously received by Maj. Gen. Arthur MacArthur, the military governor, and after about a month was furnished with comfortable offices in the Ayuntamiento. Upon its arrival an informal statement of the purposes of the Commission was issued, a copy of which is appended and marked "Exhibit A." Under the instructions of the President, the commission was not to perform any official function in the military government until the 1st of September following, but was to occupy itself solely with the duty of investigating conditions. Subjects were assigned to the commissioners, as follows:

Taft: The civil service, the friars, and public lands.

Worcester: Municipal corporations, forestry, agriculture, mining, and public health.

Wright: Internal improvements, franchises, militia, and police and criminal code.

Ide: Code of civil procedure, courts, banks and currency, and registration laws.

Moses: Schools and taxation.

Taft, Wright, and Ide: Civil code.

The Commission: Central, department, and provincial governments.

Each commissioner was expected to conduct investigations and examinations on the subjects assigned to him. Much formal evidence was taken and transcribed, but more was gathered from informal conversations when no stenographer was present.

Many witnesses were examined as to the form of government best adapted to these islands and satisfactory to the people. All the evidence taken, no matter what the bias of the witness, showed that the masses of the people are ignorant, credulous, and childlike, and that under any government the electoral franchise must be much limited, because the large majority will not, for a long time, be capable of intelligently exercising it.

In July the military governor was requested, by petition of the rector of the University of St. Thomas, to allow the College of San José to be opened to receive medical students as a part of the university. The college had been closed by General Otis, when military governor, on the ground that it was the property of the Government of the United States, acquired by the treaty of Paris from Spain, and held for the benefit of the people of the Philippine Islands for educational purposes. The petition for reopening the college was vigorously resisted by a delegation of prominent citizens of Manila. At a conference between the military governor and the Commission it was agreed that his action should await the result of a hearing to be had before the commission to enable it to determine whether the claim made on behalf of the Philippine people was of sufficient substance to justify the Commission, when it should assume legislative power, in enacting a law providing for the appointment of trustees to administer the trust, and authorizing and directing them by proper suit in the name of the United States to test the right of the present administrators to continue to manage the school and its property.

The hearings of the issue were begun in July and continued from time to time until late in October. Very great public interest was shown in the elaborate arguments which were made on behalf of the Philippine people by Señor Don Felipe Calderón, and on behalf of the Catholic Church, which claimed control of the property, by Archbishop Chapelle, the Apostolic Delegate, and by Archbishop Nozaleda, of Manila. The Commission has not yet announced its conclusion as to its duty in the premises, but expects to do so within a month. The issue is a very important one. The property of San José College is worth half a million dollars gold, and much the same question affects the control of at least one other institution of charity in Manila—the large hospital of San Juan de Dios. Shortly stated, the issue is whether the Spanish Government, in its admitted right to control the management of the particular trust property, was acting in its secular and civil capacity, or as a mere agent of the Catholic Church under the concordat between the Pope and the Spanish Crown.

On the 21st of August, in reply to your cable direction of the 17th of August, the Commission expressed its view of the general condition of the islands. With the exception of one or two minor details, we wish to confirm by this the statements of that report. The assertion that in Negros more sugar is in cultivation than ever before is probably erroneous. It was derived from the evidence of Father McKinnon, who had recently made a visit of observation to all parts of Negros, and who made the statement to the Commission as telegraphed.

The report of General Smith, as Governor of Negros, to the Military Governor, which the Commission has just seen, does not agree with this as to amount of sugar in cultivation this year, though, and

this probably explains Father McKinnon's conclusion. General Smith states to the Commission that in the character of the cane raised and the amount per acre this is the best year for many years, but that the acreage is considerably less than formerly, due chiefly to the scarcity of capital and the excessive rates of interest charged by the banks and money lenders in that island. At the time the dispatch was sent the province of Ilocos Sur was undisturbed and was supposed to be free from insurgents, but the activity of the insurgent leader Tinio and the missionary work of certain Tagalogs in the towns between August and November, with the impetus furnished by the report of the American electoral campaign, gathered a considerable force of insurgents in the mountain range east of the coast and by the usual methods produced unsettled conditions in that province. In September reports of contemplated formidable movements on the part of the insurgents in pacified provinces induced what may properly be called a flurry of fear and excitement among the natives. There was one or two insurgent incursions, for spectacular purposes, along the line of the railroad, which, as stated in the dispatch, had not been molested for more than five months previous.

The amount of damage done to the railroad was embraced in cutting some telegraph wires, in tearing up the track for a short distance, and in ditching one train. We are informed by the manager of the railroad that his confidential agent has discovered that all the work was done by the people of a barrio near the railroad. That it was done by them reluctantly under the threat of Tecson, an insurgent leader, hiding in that neighborhood; that unless they did this he would burn the village. The impression of great disturbance in the country in September and October, caused in the way described, considerably affected the business between Manila and the country. Two unfortunate reverses of the United States troops, one near Siniloan and the other in Marinduque, served to render the insurgent leaders more defiant and boastful, and possibly to postpone the collapse of the insurrection, predicted in our dispatch as likely to occur within sixty days after the election, for a somewhat longer period.

From all the information we can get it seems clear that a great majority of the people long for peace and are entirely willing to accept the establishment of a government under the supremacy of the United States. They are, however, restrained by fear from taking any action to assist the suppression of the insurrection which has for its indispensable support a conspiracy of murder. Without this, armed resistance to the United States authority would have long ago ceased. Anyone suspected of giving information to the Americans concerning the insurgents is immediately marked for assassination. The ramifications of the conspiracy are so wide that it has effected the terrorism of an entire people. It is a Mafia on a very large scale.

The difficulty the people have in communicating with the Americans, because of a want of knowledge of their language, character, and customs, would have a tendency to make them silent in any event, and when this is accompanied by the very present prospect of being abducted, boloed, or tortured if any disclosure is made, it is not remarkable that the insurgents are able to assume the rôle of amigos when pressed and hide themselves in barrios of the towns if driven out of the mountains where they have their headquarters. Not infrequently the municipal officers assume a double duty, one to the Americans and one to the insurgents, though this is not generally true except in those provinces near to which an active insurgent headquarters is situated. Nor does his double part indicate that the sympathy of the municipal officer is with the insurgent, but only that punishment for failure to render service to the insurgents will be much more bloody and severe than for infidelity to the Americans and the violation of the oath of allegiance. We have already made provision out of the public civil fund for the widows and children of two municipal officers assassinated by order of the insurgents for loyal civil service to the United States, and there are others with similar claims likely to seek the same relief. We do not intend to establish a system of pensions, but we think that in such cases, when clear, it is a wise public policy to give all who are risking their lives for the United States and the best interests of their country to know that in the unfortunate case of their murder their families will be taken care of by a grateful Government.

In southern Luzon the conditions have improved in the provinces of Cavite, Batangas, and Laguna during the last month. The province of Tayabas is peaceful. The towns are full of people, a sure indication of freedom from disturbance, and houses are difficult to secure. In the Camarines and Albay the conditions are not so satisfactory, but they are growing better. In the Visayans and Mindanao the conditions are much the same as reported in our dispatch of August 21, except that in Leyte much improvement has been made.

Any statement of the conditions prevailing in these islands during the last six months which ignores the effect of the American election as a controlling element in the situation is necessarily inadequate. Since the result was announced there has been a great decrease in insurgent activity. The most intense interest was felt by the insurgents before the election in the issue, and the most intense disappointment since, which will certainly effect the collapse of the insurrection in the near future. Capital and all business interests hung upon the predictions of success of the one party or the other. No one breathed more freely and took more enjoyment in the result as announced than the conservative Filipino people who had anything to lose from the anarchy

which it was sure would follow in the abandonment of these islands under the policy of the defeated party in the late election, as that policy was understood here by the insurrectos and other Filipinos. From now on conditions in these islands will grow steadily better, and however formidable the difficulties really are, the possibilities that present themselves of improving the condition of the people in education, wealth, comfort, and in the knowledge of how to govern themselves can not but awaken the deepest enthusiasm on the part of every friend of civilization familiar with the actual conditions.

On the 1st of September the Commission began its legislative and executive duties under the instructions of the President. It adopted the policy of passing no laws, except in cases of emergency, without publishing them in the daily press, after they had passed a second reading, and giving to the public an opportunity to come before the Commission and suggest objections or amendments to the bills. The Commission has likewise adopted as part of its regular procedure the submission of all proposed bills to the Military Governor for his consideration and comment before enactment. We think that the holding of public sessions furnishes instructive lessons to the people, as it certainly secures to the Commission a means of avoiding mistakes. The announcement of the Commission on this subject is appended, marked "Exhibit B." The Commission has now passed forty-seven laws of more or less importance. These laws have been forwarded to you as passed. A complete file also accompanies this, marked "Exhibit L." A municipal code has been prepared and forwarded to you for the consideration of one or two critical matters and has not yet been adopted, pending your consideration of it. A tariff bill, hereafter to be referred to more in detail, has been prepared modifying the Spanish tariff and arranging the schedule so as to secure an adequate revenue with the least burden upon those least able to stand it. It has not been disposed of in the Commission, and will not be adopted until all the interests in Manila and the islands shall have had an opportunity to be heard on its various provisions and until it shall have been forwarded for consideration in America and approval by you.

A judicial and civil procedure bill is nearly completed. The same thing is true of a bill for provincial-government organization. A new internal-tax law must then be considered. The wealth of this country has largely been in agricultural lands and they have been entirely exempt. This enabled the large landowners to escape any other taxation than the urbana, a tax which was imposed upon the rental value of city buildings only, and the cedula tax, which did not in any case exceed \$37.50, Mexican, a person. We think that a land tax is to be preferred, but of this there will be found more detailed discussion below.

THE CIVIL SERVICE.

The fifth law adopted by the Commission was an act providing for the organization of a civil service on the basis of merit.

It was the purpose of the Commission in passing the civil service bill to provide a system which, after it should begin to work, would secure the selection and promotion of civil servants solely on the ground of merit, and would permit anyone by a successful competitive examination to enter the service at the lowest rank and, by the efficient discharge of his duties and further examinations for promotion, to reach the head of any important department of the government.

The difficulties in securing a good civil service in the islands are formidable. There are two classes of applicants, one the Americans and the other the Filipinos. The Filipinos have had no training except from being in the Spanish service or observing its workings. That service was notoriously corrupt. The salaries paid were palpably inadequate for the support of life and were a plain intimation to the civil servant, in their inadequacy, that, if he could, he was expected to add to his official income in illegal ways and by speculation. This is not only characteristic of Spanish civil service, but also of that of all oriental governments, and in the outset it is not too severe to say that the percentage of Filipinos who can be trusted to handle money in public office or to exercise any direct official control over their fellow-residents without speculation or the imposition of illegal charges is comparatively small. They must be taught by better salaries and by the example of the Americans a different standard of integrity. On the other hand, the Americans who come to these islands come eight or ten thousand miles, come with a venturesome spirit, come with the idea of amassing a competence by their stay in the islands. They are exposed in any important official position where there is opportunity for defeating the rights of the Government to constant temptations offered them by interested persons seeking to escape lawful burdens or to obtain fraudulent advantage, and who have no other conception of a public officer than of one who is to be reached by bribery if the sum offered be large enough.

Men may leave the United States honest, but with the weakening of moral restraints of home associations and with the anxious desire to make so long a trip result successfully in a pecuniary way, demoralization and dishonesty are much more likely to follow than at home. To avoid the dangers presented by these conditions, it is necessary, first, to banish all favoritism and political considerations from the selection of civil servants and rigidly to enforce the requirements of a competitive examination and a satisfactory showing by the applicant of his good moral character; second, to pay adequate salaries and to allow liberal leaves of absence, adapted to preservation of health in

the tropics, thus securing that contentment with the service without which good work is not possible; and, third, to awaken an enthusiasm in the service by offering as a reward for faithful and highly efficient work a reasonable prospect of promotion to the highest positions in the Government. It is essential that the system be administered with the utmost rigidity and impartiality, because in no part of the world does rumor of injustice, of fraud, and of underhand methods in the administration of public office receive so much credit as in the Orient; and if dissatisfaction, produced by a sense of injustice, finds place in the civil service of the islands, it will greatly diminish its efficiency. The commission has passed a law which it believes goes further than any civil-service law of any State or of the United States in carrying out the theory of the merit system, and it takes this opportunity to testify to the earnest assistance and cooperation in maintaining pure the civil service of these islands received from the President and yourself.

We are directed in our instructions to prefer the Filipino for office when other qualifications are equal, and we have by the act imposed this as a mandate upon the appointing power. We have also preferred in the same manner discharged soldiers and sailors of the United States. We could not for obvious reasons introduce provisions discriminating against the Filipinos because of the tendency of their previous training, already referred to. To secure appointments from the two races according to their capacity and qualifications, we must rely, not only upon the examinations, but also upon the discretion of the appointing power in its selection from the list of eligibles presented by the civil-service board, and upon the power of removal which remains fully vested in the appointing power, unhampered by any provisions of the statute. The difficulties in selection presented by the education and tendency of the Filipino will gradually grow less and less as the service grows older and as the Filipino learns a different official standard of integrity and sees upon what promotion in the civil service depends.

A present question in the civil service is the high cost of living in Manila. There are not enough houses in Manila to make comfortable places of residence for the civil servants who come here from the United States. The high prices of lumber and the rise in the cost of labor and materials have all retarded building. Shortly after the timber regulations were issued by the military government there was a reduction in the price of lumber, and it was hoped that the reduction would continue, but the demand for it was so great that the supplies of cut lumber on the coast awaiting shipment to Manila were rapidly exhausted, and the means for cutting it in the mountains, due to disturbed conditions, are so limited that it may be some considerable time before the price is reduced to a normal figure. It has been proposed, and it seems a practical suggestion, that the American civil servants

perfect an organization and work out, with the assistance of the governmental authorities, a plan for a cooperative civil-service hotel or boarding house, and possibly a cooperative store. If one is well housed in Manila, it is a very pleasant city to live in. If he is not thus fortunately placed he can but have an unpleasant impression of life here and impart it to others. It is the duty of the Insular Government to look after its employees and to see that they are comfortable; for only under such conditions can the best work be obtained from them.

The question of what kind of examination or what kind of a system of selection shall be used for school teachers has not yet been decided, and the Commission awaits the recommendation in this regard of Mr. Atkinson, the General Superintendent of Public Instruction.

The Commission has appointed as members of the Civil Service Board, Mr. Frank M. Kiggins, for years a skilled examiner of the United States Civil Service Commission, Mr. W. L. Pepperman, also for a long time an efficient member of the examining staff of the United States Civil Service Commission, and Chief Justice Arellano, who has had considerable knowledge of the workings of the Spanish civil service. The Chief Justice declined to accept any compensation, and would take the office only temporarily in order to set the system going and to assist in the first and most important function of the board, the adoption of rules for the execution of the act. The rules have not as yet been completed and issued, and it will probably be from thirty to sixty days before the regular system of examinations can be begun.

The law contemplates the holding of examinations both in the United States and in the Philippine Islands, and requires that the examinations shall cover the Spanish and the English languages where the applicant seeks a position in which a knowledge of the two languages is essential.

It was impossible, in applying the merit system to a civil service already formed and carrying on an extensive government, to end the terms of those at present employed and to require them to seek their places anew by competitive examinations. This would have demoralized the service and created paralyzing confusion. We deemed it wiser to empower the civil service board in its discretion to require employees in the service at the time of the passage of the act to take examinations, but subject to this restriction—to treat them as if they had come into the service regularly and as entitled to stand for promotion. Upon the recommendation of the Civil Service Board and the Military Governor, we have also provided that soldiers detailed to perform duties in the civil service shall stand upon the same footing when discharged from the army as if they had regularly entered the service when detailed. The Civil Service Board, which has been investigating the personnel of the service, reports that the soldiers who have been detailed to clerical positions have been carefully selected from the large number available and are on the whole the best clerks now employed.

One of the problems confronting the Commission is the substitution of civilians for army officers and enlisted men now detailed for the discharge of civil duties. In "Exhibit C" there is shown a memorandum of the number of officers, enlisted men, American civilians, natives, Spaniards, and Chinese, engaged in the civil service, also a comparative percentage statement of the Americans and natives engaged in the service. Under the amendment to the civil service act already referred to, permitting officers and enlisted men detailed for civil service to retain their positions on receiving their discharge from the Army, it is thought that many of the volunteer officers and men will be glad to continue in the service as civilians. The other places the Commission will probably be able to fill from the list of eligibles to be furnished by the Civil Service Board, which will be probably by February next.

THE FRIARS.

Ordinarily, the Government of the United States and its servants have little or no concern with religious societies or corporations and their members. With us the Church is so completely separated from the State that it is difficult to imagine cases in which the policy of a church in the selection of its ministers and the assignment of them to duty can be regarded as of political moment, or as a proper subject of comment in the report of a public officer.

In the pacification of the Philippines by our Government, however, it is impossible to ignore the very great part which such a question plays. Excepting the Moros, who are Moslems, and the wild tribes, who are pagans, the Philippine people belong to the Roman Catholic Church. Total number of Catholic souls shown by the church registry in 1898 was 6,559,998. To care for these in that year there were in the Archipelago 746 regular parishes, 105 mission parishes, and 116 missions, or 967 in all. Of the regular parishes all but 150 were administered by Spanish monks of the Dominican, Augustinian, or Franciscan orders. Natives were not admitted to these orders. There were two kinds of Augustinians in these islands, the shod and the unshod. The latter are called Recolletos and are merely an offshoot from the original order of St. Augustine. By the revolutions of 1896 and 1898 against Spain, all the Dominicans, Augustinians, Recolletos, and Franciscans acting as parish priests were driven from their parishes to take refuge in Manila. Forty were killed and 403 were imprisoned and were not all released until by the advance of the American troops it became impossible for the insurgents to retain them. Of the 1,124 who were in the islands in 1896, but 472 remain. The remainder were either killed or died, returned to Spain, or went to China or South America.

There were also in the islands engaged in missions and missionary

parishes 42 Jesuits, 16 Capuchins, and 6 Benedictines, and while many of these left their missions because of disturbed conditions, they do not seem to have been assaulted or imprisoned for any length of time. In addition to the members of the monastic orders, there were 150 native secular clergymen in charge of small parishes who were not disturbed. There were also many native priests in the larger parishes who assisted the friar curates, and they have remained, and they have been and are acting as parish priests. The burning political question, discussion of which strongly agitates the people of the Philippines, is whether the members of the four great orders of St. Dominic, St. Augustine, and St. Francis, and the Recoletos shall return to the parishes from which they were driven by the revolution. Colloquially the term "friars" includes only the members of these four orders. The Jesuits, Capuchins, Benedictines, and the Paulists, of whom there are a few teachers here, have done only mission work or teaching, and have not aroused the hostility existing against the four large orders to which we are now about to refer.

Archbishop Chapelle, of New Orleans, Apostolic Delegate, called on the Commission soon after its arrival and requested that in any investigation into the matter of the friars which the Commission might deem it wise to institute, the provincials of the orders, and the five bishops, including the archbishop of Manila, who were all of them friars, should be given a hearing. Accordingly the commissioner to whom the subject was assigned was enabled by the courtesy and assistance of Archbishop Chapelle to take the statements of the provincials of all the monastic orders resident in Manila, and of the archbishop of Manila, the bishop of Vigan, and the bishop of Jaro. The bishop of Cebú had returned to his diocese. So too had the episcopal administrator of the diocese of Nueva Cáceres. These two gentlemen were not therefore examined. The questions asked covered all the charges which had been made against the friars, the feeling of the people toward them, the extent of their property, the part they took in the politics and government of the islands under Spain, and the possibility of their return to their parishes. Other witnesses, Philippine laymen, American Catholic priests, army officers, Catholic and Protestant, and newspaper correspondents, were examined in great number, though all their statements could not be taken in writing. We have attempted without bias to reach a conclusion as to the truth, and shall now state it.

The friar as a parish priest was usually the only man of intelligence and education who knew both the native dialect and the Spanish language well in his parish. His position as the spiritual guide of the people necessarily led to his acting as intermediary between them and the rest of the world in secular matters. In only a few of the parishes was there any other Spanish representative of the Government of

Spain than the friar priest. At first actually, and afterwards by law, he came to discharge many civil functions and to supervise, correct, or veto everything which was done or sought to be done in the pueblo which was his parish. The provincial of the Franciscan order describes his civil functions as follows:

The following may be mentioned as among the principal duties or powers exercised by the parish priest: He was inspector of primary schools; president of the health board and board of charities; president of the board of urban taxation (this was published lately); inspector of taxation; previously he was the actual president, but lately the honorary president of the board of public works.

He certified to the correctness of the cedula, seeing that they conformed to the entries in the parish books. They did not have civil registration here, and so they had to depend upon the books of the parish priest. These books were sent in for the purpose of this cedula taxation, but were not received by the authorities unless viséd by the priest.

He was president of the board of statistics because he was the only person who had any education. He was asked to do this work so that better results could be obtained. It was against the will of the parish priest to do this, but he could only do as he was told. If they refused they were told that they were unpatriotic and not Spaniards. If they had declined they would have been removed from their charge.

He was president of the census taking of the town. Under the Spanish law every man had to be furnished with a certificate of character. If a man was imprisoned and he was from another town they would send to that other town for his antecedents, and the court would examine whether they were good or bad. They would not be received, however, unless the parish priest had his visé on them. The priest also certified as to the civil status of persons.

Every year they drew lots for those who were to serve in the army, every fifth man drawn being taken. The parish priest would certify as to that man's condition. * * * Every year they would go to what they call the sacramental books and get the names of all those who were 20 years of age. This list being certified to by the parish priest the names were placed in an urn and then drawn out. Every fifth man was taken. * * * They disliked the service. Many of them would take to the woods and the civil guard would have to go after them and bring them back. They would be put in jail and guarded until they could be taken to the capital city. There were many cases of desertion. * * *

By law the priest had to be present when there were elections for municipal offices. Very often the parish priest did not want to go, but the people would come to him and say, "Come, for there will be disturbances and you will settle many difficulties."

He was the censor of the municipal budgets before they were sent to the provincial governor.

He was the president of the prison board and inspector (in turn) of the food provided for the prisoners.

He was a member of the provincial board. Besides the parish priest, there were two curates who served on this board. Before the provincial board came all matters relating to public works and other cognate matters. All estimates for public buildings in the municipalities were submitted to this board.

He was also a member of the board for partitioning Crown lands. After the land was surveyed and divided and a person wanted to sell his land he would present his certificate, and the board would pass on the question whether or not he was the owner. * * *

In some cases the parish priests in the capitals of the provinces would act as auditors. In some of these places there would be only the administrator, and then the curate would come in and act as auditor.

A great many of the duties I am now enumerating were given to the priests by the municipal law of Maura.

He was also counselor for the municipal council when that body met. They would notify him that they were going to hold a meeting and invite him to be present.

The priest was the supervisor of the election of the police force. This also had to be submitted to the provincial governor.

He was the examiner of the scholars attending the first and second grades in the public schools.

He was the censor of the plays, comedies, and dramas in the language of the country, deciding whether they were against the public peace or the public morals. These plays were presented at the various fiestas of the people.

Besides the above, there were other small things which devolved upon the priests.

It is easy to see from this that the priest was not only the spiritual guide, but that he was in every sense the municipal ruler.

It further appeared from evidence of other friars that whenever a resident of any pueblo was suspected of being a disturber of the peace or a plotter against the Government, or a dangerous character in other respects, no action was taken until the parish priest was consulted by the head of the insular government.

During the years immediately preceding 1898, there were many deportations of residents of the various pueblos to the far distant southern islands of the group, and whether unjustly or not the parish priests were charged by the people with being instrumental in bringing these about, and it is said by antifriar witnesses, though denied by the friars, that in most of these cases the deportations were initiated by the friars, who for this reason came to be looked on by the people as having the power of life and death over their parishioners.

The archbishop and bishops formed part of what was known in Manila as the board of authorities. The duties of this board were principally to investigate matters of urgent moment and in times of crises to advise the governor-general. The archbishop and bishops constituted the section of the board on "government and fomento" (analogous to our Department of the Interior). The archbishop and bishops and provincials of the religious orders also formed a part of the council of administration, a body analogous to the council of State of Spain or France, charged with advising the governor-general. Each order had a leading officer resident in Madrid, through whom the court of Spain could be quickly and directly reached by the order in the Philippines without the intervention of the civil or military authorities of the islands. The participation of the friars in the affairs of the parish, provincial, and insular governments was much more effective to secure entire control of the political situation than if the priests had been merely secular and not bound together with the close association of the monastic orders.

The truth is that the whole Government of Spain in these islands rested on the friars. To use the expression of the provincial of the Augustinians, the friars were "the pedestal or foundation of the sov

ereignty of Spain in these islands," which being removed, "the whole structure would topple over." The number of Spanish troops in these islands did not exceed 5,000 until the revolution. The tenure of office of the friar curate was permanent. There was but little rotation of priests among the parishes. Once settled in a parish, a priest usually continued there until superannuation. He was, therefore, a constant political factor for a generation. The same was true of the archbishop and the bishops. The civil and military officers of Spain in the islands were here for not longer than four years, and more often for a less period. The friars, priests, and bishops, therefore, constituted a solid, powerful, permanent, well-organized political force in the islands which dominated policies. The stay of those officers who attempted to pursue a course at variance with that deemed wise by the orders was invariably shortened by monastic influence.

Of the four great orders, one, the Franciscans, is not permitted to own property except convents and schools. This is not true of the other three. They own some valuable business property in Manila and have large amounts of money to lend. But the chief property of these orders is in agricultural land. The total amount owned by the three orders in the Philippines is approximately 403,000 acres. Of this 121,000 acres is in the province of Cavite alone. The whole is distributed as follows:

Luzon:

Province of—	Acres.
Cavite	121,747
Laguna	62,172
Manila	50,145
Bulacán	39,441
Morong	4,940
Bataan	1,000
Cagayan	49,400
Cebú, island of	16,413
Mindoro, island of	58,455
Total	403,713

The Augustinians were granted by the Spanish Government a large estate in the sparsely settled province of Cagayan in northern Luzon in 1880 with the hope that they might invest capital there and improve the country. The Recoletos acquired in the same manner and for the same purpose even a larger estate in the wild and unsettled island of Mindoro in 1894. With these exceptions the lands held by the friars have been theirs for more than a generation, and they have owned most of the valuable estates for one or two centuries. In few instances, it is believed, can their ownership be successfully attacked in law, for prescription has supplied any defect which might have been in their original titles. This is the concession of Don Felipe Calderón, one of the brightest of the Filipino lawyers and most prominent in his oppo-

sition to the friars, though he suggests that the friars had such power to defeat claims against them under the Spanish régime as to furnish a just reason for suspending the operation of prescription.

The suggestion is, however, not believed to be a tenable one. Moreover, no adverse claimants to agricultural lands held by the friars have appeared before the Commission or the Courts, except certain tenants of an estate lying near Calamba in the province of Laguna, and the issue made by them can be readily settled in the ordinary tribunals. In the older provinces of Cavite, Laguna, Manila, and Bulacan, the haciendas of the friars were very well cultivated before the war and were quite valuable. On some of the estates large amounts of money were invested by the orders in furnishing proper irrigation and other improvements. Of the total number of acres of all the land held, the Dominicans have 161,953; the Augustinians, 151,742; and the Recoletos, 93,035. The annual income of the Dominicans from their lands before the war was \$211,356 (Mexican), and that of the Augustinians was \$150,000 (Mexican). The income of the Recoletos must have been considerably less, so that it is unlikely that the annual income from all their agricultural land ever exceeded \$450,000 (Mexican). The land was rented on shares in small holdings. Leases were given for three years, and no assignment was permitted without the consent of the order. Tenancy usually continued in the same family and the tenant right seems, sometimes, to have been considered valuable. It is understood that for the last two years the friars have not attempted to collect rents from persons occupying their lands. On the other hand, agents of the insurgents, claiming title to the land by virtue of confiscation acts of the so-called Malolos government, have, from time to time, made collections from the tenants.

The friars were exempt from trials for offenses, except the most heinous, in the ordinary civil courts of the islands under the Spanish rule, and were entitled to a hearing before an ecclesiastical court, and even in the excepted cases trials must first be had in the latter tribunal.

It has been frequently charged that there was much immorality among the friars, and that to this is due the popular hostility against them. The friar witnesses denied the charges of general immorality, admitting only isolated cases, which they said were promptly disciplined. The evidence on this point to the contrary, however, is so strong that it seems clearly to establish that there were enough instances in each province to give considerable ground for the general report. It is not strange that it should have been so. There were, of course, many educated gentlemen of high moral standards among the friars. The bishops and provincials who testified were all of this class. But there were others, brought from the peasant class in Andalusia, whose training and education did not enable them to

resist temptations which, under the peculiar conditions, were exceptionally powerful. As the bishop of Jaro said:

You must bear in mind it would be very strange if some priests should not fall. To send a young man out to what might be termed a desert, the only white man in the neighborhood, surrounded by elements of licentiousness, with nobody but the Almighty to look to, with the climatic conditions urging him to follow the same practices as surround him, it is a miracle if he does not fall. For instance, you take a young man here in the seminary, who is reading his breviary all the time in the cloister, under discipline all the time, seeing nobody, and suddenly transplant him to a place where he is monarch of all he surveys—he sees the women half clothed, and as he is consulted on all questions, even of morality and immorality, his eyes are opened, and if he is not strong he will fall.

But while the charges have considerable truth in them, another fact clearly appeared which makes such immorality as there was largely irrelevant to the issue we are considering. This was that the immorality was not the chief ground for hostility to the friars. The common people are not generally licentious or unchaste, but the living together of a man and woman without the marriage ceremony is not infrequent and is not condemned. It did not shock the common people or arouse their indignation to see their curate establish illicit relations with a woman and have children by her. The woman generally did not lose caste on that account, but often prided herself on the relation to the chief authority in the village and on the paternity of her children, who were apt to be better looking, brighter, and more successful than the pure Filipino children. Of course there may have been instances in which a friar used his autocratic power to establish a relation of this kind against the will of the woman and her relatives, and these cases have lent themselves to deepen the colors of the lurid and somewhat overdrawn pictures painted by antifriar writers, speakers, and witnesses concerning the abuses of the friars. But it is conceded by the most intelligent and observant of the witnesses against the friars that their immorality, as such, would not have made them hateful to the people. On the contrary, the Filipino priests who have taken their places are shown to be fully as immoral as the friars, but the people do not feel any ill will against them on this account.

We must look elsewhere, therefore, for the chief ground of the deep feeling cherished against the friars by the Filipino people. It is to be found in the fact that to the Filipino the government in these islands under Spain was the government of the friars. Every abuse of the many which finally led to the two revolutions of 1896 and 1898 was charged by the people to the friars. Whether they were in fact to blame is perhaps aside from our purpose, but it can not admit of contradiction that the autocratic power which each friar curate exercised over the people and civil officials of his parish gave them a most plausible ground for belief that nothing of injustice of cruelty, of oppression,

of narrowing restraint of liberty was imposed on them for which the friar was not entirely responsible. His sacerdotal functions were not in their eyes the important ones, except as they enabled him to clinch and make more complete his civil and political control. The revolutions against Spain's sovereignty began as movements against the friars. Such was the tenor of Rizal's chief work, "*Noli me tangere*." The treaty of Biacnabato, which ended the first revolution, is said to have contained the condition that the friars should be expelled. In the second revolution, as already said, at least 40 friars were killed, and over 400 were imprisoned. Having in view these circumstances, the statement of the bishops and friars that the mass of the people in these islands, except only a few of the leading men of each town and the native clergy, are friendly to them, can not be accepted as accurate. All the evidence derived from every source, but the friars themselves, shows clearly that the feeling of hatred for the friars is well-nigh universal and permeates all classes.

In the provinces of Cavite, Laguna, and Bulacán, as well as in the country districts of Manila, the political feeling against the friars has in it also an element of agrarianism. For generations the friars have been lords of these immense manors, upon which since 1880 they have paid no taxes, while every "*hombre*" living on them paid his *cedula*, worked out a road tax, and if he were in business of any kind paid his industrial impost. It is significant that it was in Cavite that the two revolutions broke out, and that each in its beginning was merely a protest against the aggressions of the friars.

In the light of these considerations it is not wonderful that the people should regard the return of the friars to their parishes as a return to the condition before the revolution. The common people are utterly unable to appreciate that under the sovereignty of the United States the position of the friar as curate would be different from that under Spain. This is not a religious question, though it concerns the selection of religious ministers for religious communities. The Philippine people love the Catholic Church. The solemnity and grandeur of its ceremonies appeal most strongly to their religious motives, and it may be doubted whether there is any country in the world in which the people have a more profound attachment for their church than this one.

The depth of their feeling against the friars may be measured by the fact that it exists against those who, until two years ago, administered the sacraments of the church upon which they feel so great dependence and for which they have so profound a respect. The feeling against the friars is solely political. The people would gladly receive as ministers of the Roman Catholic religion any but those who are to them the embodiment of all in the Spanish rule that was hateful. If the friars return to their parishes, though only under the same police protection which the American Government is bound to extend to any

other Spanish subjects commorant in these islands, the people will regard it as the act of that Government. They have so long been used to have every phase of their conduct regulated by governmental order that the coming again of the friars will be accepted as an executive order to them to receive the friars as curates, with their old, all-absorbing functions. It is likely to have the same effect on them that the return of General Weyler under an American commission as governor of Cuba would have had on the people of that island.

Those who are charged with the duty of pacifying these islands may, therefore, properly have the liveliest concern in a matter which, though on its surface only ecclesiastical, is, in the most important phase of it, political and fraught with the most critical consequences to the peace and good order of the country in which it is their duty to set up civil government. We are convinced that a return of the friars to their parishes will lead to lawless violence and murder, and that the people will charge the course taken to the American Government, thus turning against it the resentment felt toward the friars. It is to be remembered that the Filipinos who are in sympathy with the American cause in these islands are as bitterly opposed to the friars as the most irreconcilable insurgents, and they look with the greatest anxiety to the course to be taken in the matter. It is suggested that the friars, if they returned, would uphold American sovereignty and be efficient instruments in securing peace and good order, whereas the native priests who now fill the parishes are many of them active insurgent agents, or in strong sympathy with the cause. It is probably true that a considerable number of the Filipino priests are hostile to American sovereignty largely because they fear that the Catholic Church will deem it necessary on the restoration of complete peace to bring back the friars or to elevate the moral tone of the priesthood by introducing priests from America or elsewhere. But it is certain that the enmity among the people against the American Government caused by the return of the friars would far outweigh the advantage of efforts to secure and preserve the allegiance of the people to American sovereignty which might be made by priests who are still subjects of a monarchy with which the American Government has been lately at war, and who have not the slightest sympathy with the political principles of civil liberty which the American Government represents.

We have set forth the facts upon this important issue, because we do not think they ought to be, or can be, ignored. We earnestly hope that those who control the policy of the Catholic Church in these islands with the same sagacity and provision which characterizes all its important policies, will see that it would be most unfortunate for the Philippine Islands, for the Catholic Church, and for the American Government to attempt to send back the friars, and that some other

solution of the difficulties should be found. The question for the prelate and statesman is not whether the bitter feeling toward the friars is justified or not, but whether it exists. It does not seem to us, therefore, to aid in reaching a conclusion to point out that all the civilization found in the Philippines is due to the friars. Be it so. Ought they on this account to return to their parishes in the face of a deep, popular feeling against them? A popular bias or prejudice, deep seated in an ignorant people, is not to be disregarded because it can not stand the test of reason or evidence. It must be reckoned with. It would, of course, be of much assistance to the American cause if the Catholic Church were to send among the people American priests with the love of their country that they have always shown, and with their clear understanding of civil liberty and conservative popular government; but it is said that such priests are not available for the work. This is a question of purely church policy with which we have nothing to do. It is enough to say that the political question will be eliminated if the friars are not sent back.

The friars have large property interests in these islands which the United States Government is bound by treaty obligations and by the law of its being to protect. It is natural and proper that the friars should feel a desire to remain where so much of their treasure is. Nearly all the immense agricultural holdings have been transferred by the three orders—by the Dominicans to a gentleman named Andrews, by the Recolletos to an English corporation, and by the Augustinians to another corporation; but these transfers do not seem to have been out-and-out sales, but only a means for managing the estates without direct intervention of the friars, or for selling the same when a proper price can be secured. The friars seem to remain the real owners. It would avoid some very troublesome agrarian disturbances between the friars and their quondam tenants if the insular government could buy these large *haciendas* of the friars and sell them out in small holdings to the present tenants, who, forgiven for the rent due during the two years of war, would recognize the title of the government without demur, and gladly accept an opportunity, by payment of the price in small installments, to become absolute owners of that which they and their ancestors have so long cultivated. With the many other calls upon the insular treasury, a large financial operation like this could probably not be conducted to a successful issue without the aid of the United States Government, either by a direct loan or by a guaranty of bonds to be issued for the purpose. The bonds or loan could be met gradually from the revenues of the islands, while the proceeds of the land, which would sell readily, could be used to constitute a school fund. This object, if declared, would make the plan most popular, because the desire for education by the Filipinos of all tribes is very strong and gives encouraging promise of the future mental development of a now uneducated and ignorant people.

The provincials of the orders were understood in their evidence to intimate a willingness on the part of the orders to sell their agricultural holdings if a satisfactory price should be paid. What such a price would be we are unable, without further investigation, to state. If an agreement could not be reached, it is probable, though upon this we wish to express no definite opinion, that there would be ground in the circumstances for a resort to condemnation proceedings.

As the Catholic Church is and ought to continue a prominent factor in the life, peace, contentment, and progress of the Philippine people, it would seem the wisest course, wherever it is possible to do so without infringing upon the principle that church and State must be kept separate, to frame civil laws which shall accord with views conscientiously entertained by Catholics—priests and laymen—and which shall not deal unfairly with a people of a different faith. It would seem clear that any government organized under the sovereignty of the United States can not devote public money to the teaching of any particular religion. It has been suggested, however, that in any system of public education organized in these islands it would be proper to afford to every religious denomination the right to send religious instructors to the public schools to instruct the children of parents who desire it in religion several times a week, at times when such instruction shall not interfere with the regular curriculum. This is what is understood to be the Farihault plan. It is not certain that this would meet completely the views of the Catholic hierarchy, but it is likely that it would avoid that active hostility to a public-school system which might be a formidable obstacle in spreading education among these Catholic people. The Commission has reached no definite conclusion upon the matter, but only states the question as one calling for solution in the not far distant future.

PUBLIC LANDS.

The total amount of land in the Philippine Islands is approximately 29,694,500 hectares, or 73,345,415 acres. Of this amount it is estimated that about 2,000,000 hectares, or about 4,940,000 acres, are owned by individuals, leaving in public lands 27,694,500 hectares, or 68,405,415 acres. The land has not been surveyed, and these are merely estimates. Of the public lands, there are about twice or three times as much forest land as there is waste land. The land is most fertile and for the greater part naturally irrigated. There was a very great demand for this land, but owing to the irregularities, frauds, and delays in the Spanish system, the natives generally abandoned efforts to secure a good title and contented themselves with remaining on the land as simple squatters, subject to eviction by the State. In 1894 the Minister for the Colonies reported to the Queen of Spain that there were about 200,000 squatters on the public lands, but it is

thought by employees in the forestry bureau, who have been in a position to know, that there are fully double that number. In the various islands of the Archipelago the proportion of private land to public land is about as stated above, except in Mindanao, Mindoro, and Palawan, where the proportion of public land is far greater.

The insufficient character of the public-land system under the Spanish Government in these islands makes it unnecessary to refer in detail to what that system was. It is sufficient to say that there were no surveys of any importance whatever, and that the first thing to be done in establishing a public-land system is to have the public lands accurately surveyed. This is a work of years, but it is thought that a system of the laws of public lands can be inaugurated without waiting until the survey is completed. The Commission has received a sufficient number of applications for the purchase of public land to know that large amounts of American capital are only awaiting the opportunity to invest in the rich agricultural field which may here be developed. In view of the decision that the military government has no power to part with the public land belonging to the United States, and that that power rests alone in Congress, it becomes very essential, to assist the development of these islands and their prosperity, that Congressional authority be vested in the government of the islands to adopt a proper public-land system, and to sell the land upon proper terms. There should, of course, be restrictions preventing the acquisition of too large quantities by any individual or corporation, but those restrictions should only be imposed after giving due weight to the circumstances that capital can not be secured for the development of the islands unless the investment may be sufficiently great to justify the expenditure of large amounts for expensive machinery and equipment. Especially is this true in the cultivation of sugar land. The Commission, of course, is not restricted from instituting a survey, and has had some communication with the head of the Coast and Geodetic Survey in regard to the matter. It proposes in the near future to inaugurate such a system.

CIVIL GOVERNMENT.

The restricted powers of a military government referred to in discussing the public lands are also painfully apparent in respect to mining claims and the organization of railroad, banking, and other corporations, and the granting of franchises generally. It is necessary that there be some body or officer vested with legislative authority to pass laws which shall afford opportunity to capital to make investment here. This is the true and most lasting method of pacification. Now the only corporations here are of Spanish or English origin, with but limited concessions, and American capital finds itself completely

obstructed. Such difficulties would all be removed by the passage of the Spooner bill, now pending in both Houses.

The far-reaching effect upon the feeling of the people of changing the military government to one purely civil, with the army as merely auxiliary to the administration of civil law, can not be too strongly emphasized. Military methods in administering quasi-civil government, however successful in securing efficiency and substantial justice, are necessarily abrupt and in appearance arbitrary, even when they are those of the Army of a Republic; and until a civil government is established here, it will be impossible for the people of the Philippine Islands to realize the full measure of the difference between a government under American sovereignty and one under that of Spain.

The relation between the post-office department in the Philippines and the insular government has not been as clearly defined as it might be. At present the director of posts considers that by virtue of the orders of the War Department and the Post-Office Department he has the right to appoint employees in the department and to fix their salaries, and that the Commission has no function except to make the appropriations out of the Treasury to meet the obligations which he thus incurs. During the incumbency of the present director of posts, it must be said that his efficient administration and his anxious desire to cooperate in every way with the government has relieved the doubtful questions of much embarrassment; but, in the opinion of the Commission, it would be much wiser either to give to the insular government complete control over the post-office department or to transfer it to the United States Government for its sole management and support, as has been done in Porto Rico.

Assuming that it had legislative and executive control of appointments in the post-office department, the Commission brought it within the operation of the civil-service act, and it now recommends that the selection of post-office employees be made subject to that act, the importance of which has already been discussed.

The Commission was requested to appropriate money for the construction of a post-office in the city of Manila and to devote certain public land to that purpose. It was entirely willing to make the appropriation both of the land and the money, but declined to do so until it should be definitely settled whether it was to assume control of the post-office department and pay the expenses thereof or whether the control and cost were to be assumed by the United States Government.

A similar question has arisen in regard to the Marine-Hospital Service. This, it seems to us, ought to be under the insular government, and the officers in charge should be subject to orders by the insular government. Now, the anomalous condition is that the insular government has been obliged to appropriate \$300,000 to make improve-

ments for the hospital service without exercising the slightest control over the expenditure. The hospital service is efficient doubtless, but occasion might arise when it would be exceedingly embarrassing to have a branch of the government here entirely independent of the control by the chief executive and the legislature. Certainly there is nothing about the quarantine service that requires that it should be administered from the Treasury Department, 10,000 miles distant, rather than by the insular government, for even in the States of the United States the quarantine service, by inaction of Congress, is usually permitted to be a part of the local police government of the the States instead of being solely a Federal function.

REVENUES, EXPENDITURES, AND SURPLUS.

The revenues of the islands have increased so remarkably under the military government that with the result of the election and the assurance which it gives of the continuance of the present policy it may be reasonably prophesied that the income for each month will exceed \$2,000,000, Mexican. For the month of October it exceeded this amount by \$200,000, Mexican. During the present month and the two following months it will probably fall below the two million mark by two or three hundred thousand dollars, but in the months thereafter there is the strongest probability of an increase. The present ordinary expenditures of the government aggregate more than \$1,100,000, Mexican. This amount will increase in the future, as the civil service is enlarged and as the military officers and soldiers who are now detailed for the discharge of civil duties shall be supplanted by civilians whose salaries must be paid out of the public funds. The Commission has made one large appropriation of \$1,000,000, gold, by your direction, for the building of roads under the supervision of the military governor, and another appropriation of \$1,000,000, gold, for carrying on the improvements of the Manila Harbor works. The improvement of the harbor can probably not be completed without the expenditure of at least a million and a half more, gold. The appropriation which the general superintendent of public instruction has recommended for school purposes for the coming year from the insular treasury will amount to more than \$1,500,000 in gold.

There is now on hand in the Treasury, not covered by appropriations, \$2,500,000 in gold, and this sum will increase for the present at the rate of not less than \$300,000 a month, if only the ordinary appropriations are made.

One very serious question which we desire to present to you, and upon which we have already had some correspondence, is whether the policy should not now be adopted of spending nothing from the public civil funds for purely military or naval purposes. The amount spent for purely military and naval purposes in these islands from the

1st of July to the 15th of September is approximately \$800,000 Mexican, or about \$160,000 gold, a month. In view of the very great burden which will be placed upon the public civil funds the moment a satisfactory school system is inaugurated and the needs for internal improvements are supplied, the revenue, unless materially increased, will be insufficient. We think it a much better policy that everything that comes from the islands to the public civil funds should be expended for purely civil purposes. In this view we are glad to be able to say that Maj. Gen. Arthur MacArthur, the military governor, fully concurs.

MUNICIPAL GOVERNMENT.

In obedience to the instructions of the President, the Commission took up the matter of the establishment of municipal governments very shortly after its arrival at Manila. It was learned that General Order, No. 40, which provided a much more elaborate form of municipal government than that prescribed in General Order, No. 43, had not at that time been put into operation, although a number of towns had applied for organization under it. Their requests had been granted by the military governor, and the necessary preliminary steps toward organization were being taken.

The order had been translated into Spanish, Tagalog, Visayan, and other native dialects, had been widely circulated among the inhabitants of the Archipelago, and the leading men in many of the more important towns had been requested to familiarize themselves with it. It was deemed that criticisms of the provisions of this order from those who would be called upon to carry them into effect, or to live subject to them, would be helpful, and a number of conferences were accordingly held with Filipinos from different parts of the Archipelago, at which they were invited to criticise it freely and to suggest any changes which they deemed desirable. In this way a considerable amount of valuable information was gained, and it soon became evident that while many of the provisions of General Order No. 40 could be advantageously incorporated into the new code, important changes, as well as extensive additions, would be necessary.

At this time conditions were such as to lead to the belief that a large number of towns would be ready for organization when the Commission began the exercise of its functions on the 1st of September, and in view of the difficulty and confusion likely to result from the putting into effect of one form of municipal government and the replacing of it a little later by another, it was thought best to suggest on July 26, for the consideration of the military governor, the question whether it might not be well to suspend the carrying into effect of General Order No. 40. He replied that all new applications for organization under this order would be refused, but that, where permission to organize had already been granted, he believed that the difficulties

arising from a withdrawal of that permission would be greater than those involved in the change from one form of municipal organization to the other.

After hearing all who expressed a desire to be heard on the subject, and summoning numerous witnesses, the Commission drafted a new municipal law, based on General Order No. 40. For the reason hereinbefore stated, this law has not yet been enacted. Meanwhile the Commission is getting the benefit of the result of practical experience through the actual workings of General Order No. 40, under which, according to reports furnished the Commission by the military governor, fifty-five towns have been organized. It is proposed to undertake the active work of organizing municipalities under the new law at an early date.

While it is unnecessary to discuss in detail the new measure, the text of which has been forwarded to you, explanation of certain of its provisions may be useful.

The "pueblos" of these islands sometimes include a hundred or more square miles. They are divided into so-called barrios, or wards, which are often very numerous and widely separated. In order that the interests of the inhabitants of each ward may be represented in the council, on the one hand, and that that body may not become so numerous as to be unwieldy, on the other, it is provided that the councilors shall be few in number (18 to 8, according to the number of inhabitants) and shall be elected at large; that where the wards are more numerous than are the councilors, the wards shall be grouped into districts, and that one councilor shall be in charge of each ward or district, with power to appoint a representative from among the inhabitants of every ward thus assigned to him, so that he may the more readily keep in touch with conditions in that portion of the township which it is his duty to supervise and represent.

General Order No. 40 gave the suffrage to all persons 23 or more years of age who had held municipal office under Spanish sovereignty, or who annually paid 30 pesos or more of the established taxes, or who could speak, read, and write English or Spanish. The new law further extends it to all owners of real property to the value of 500 pesos, so that only those are excluded who can not read, write, and speak English or Spanish, or who do not pay 30 pesos of taxes, or who do not own 500 pesos' worth of real property, or who have never held municipal office. The Commission has every reason to believe that this liberal provision will prove entirely satisfactory to the people.

General Order No. 40 further restricted the suffrage by providing for the disqualification of defendants in criminal cases pending trial; of those who had been gubernatively corrected three or more times for misconduct or who have been subjected to corporal punishment or

disqualification; of those who were subject to civil interdiction or the vigilance of the authorities through the sentence of a court of justice; of debtors to any treasury or municipal fund; of those who had contracts with the municipal council to be finished within the municipal term; and of those who had a suit with the municipality to which they belonged, as well as of insane or feeble-minded persons. Most of these restrictions were deemed unwise, and under the new law only those will be disqualified who are delinquent in the payment of public taxes assessed since August 13, 1898, or who have been deprived of the right to vote by the sentence of a court of competent jurisdiction since August 13, 1898, and insane or feeble-minded persons.

The subject of taxation has been made the object of especially careful attention. The effect of the old Spanish system was to throw practically the whole burden on those who could least afford to bear it. The poor paid the taxes, and the rich, in many instances, went free, or nearly so, unless they were unfortunate enough to hold office, and thus incur responsibility for the taxes of others which they failed to collect. There was a considerable number of special taxes, many of which were irritating and offensive to the people, and yielded, at the best, a pitifully small revenue.

The continuation of some of these objectionable taxes was provided for by General Order No. 40, while, in case the revenue resulting should not prove sufficient for the necessities of the municipality, the council was authorized to make "a general division among the residents and property owners, in proportion to the means and resources of each, to cover the expenses of the service of the municipality, or of such part thereof as is unprovided for by receipts from the preceding sources." This last provision was deemed by the commission highly dangerous and has been abolished.

In dealing with the question of taxation it has been our purpose, first, to do away with all taxes which, through irritating those from whom they were collected or through the small amount of resulting revenue, were manifestly objectionable; second, to remove the so-called industrial taxes, except where levied on industries requiring police supervision; third, to abolish special taxes, such as the tax for lighting and cleaning the municipality and the tax for the repair of roads and streets; fourth, to provide abundant funds for the legitimate needs of the township by a system which should adjust the burden of contribution with some reference to the resources of those called upon to bear it. To this end provision has been made for a moderate tax on land and improvements thereon.

It is reasonably certain that at the outset there will be more or less opposition to this tax. This opposition will come from the rich, who have thus far escaped their fair share of the burden of taxation and who will naturally be more or less unwilling to assume it. It is

believed, however, that this opposition will be transient and will disappear as the people come to realize that the payment of taxes results in direct benefit to the communities in which they live and to themselves individually.

The exact rate of taxation on land and improvements is left to the several municipal councils within certain limits. They may reduce it to one-fourth of 1 per cent of the assessed valuation or raise it to one-half of 1 per cent; but in any event they must spend the amount accruing from a tax of at least one-fourth of 1 per cent on free public schools. Education is the crying need of the inhabitants in this country, and it is hoped and believed that the funds resulting from the land tax will be sufficient to enable us to establish an adequate primary school system. Careful and, it is believed, just provisions have been made for the determination of values and for the protection of the rights of property owners.

In the matter of collection of revenues a complete innovation has been introduced, which, it is believed, will be productive of satisfactory results. It is intended to create for the islands a centralized system for the collection and disbursement of revenues, the head officer of which shall be the insular treasurer of Manila. It is proposed to establish subordinate offices in the several departments, and others subordinate in turn to the several departmental offices in the various provinces. All revenues within any given province, whether for the municipal, provincial, departmental, or insular treasuries, will be collected by deputies of the provincial treasurer, who will immediately turn over to the several municipalities all funds collected for them. It is believed that by this means a much higher degree of honesty and efficiency can be secured than would be the case were the collectors appointed by the municipalities or chosen by suffrage, while it will be a great convenience to the taxpayer to be able to meet his obligations to all departments of the government at one time, and thus escape annoyance at the hands of a multiplicity of officials, each of whom is collecting revenue for a different end. Furthermore, the provincial treasurer will know the exact amount paid in to each municipal treasury, and will thus have a valuable check on the finances of every town in his province.

Corruption in the management of public funds has been and still is one of the crying evils in this country, and it is believed that if an honest and efficient man is put at the head of the financial system of a province and is given large control over the deputies who serve under him a much-needed lesson can be taught to the municipal officials.

In order to meet the situation presented by the fact that a number of the pueblos have not as yet been organized since the American occupation, while some 250 others are organized under the comparatively simple form of government provided by General Order Nos. 43

and 55, under the much more complicated form provided by General Order No. 40, on which the new law is based, the course of procedure which must be followed in order to bring these various towns under the provisions of the new law has been prescribed in detail and every effort has been made to provide against unnecessary friction in carrying out the change.

In view of the disturbed conditions which still prevail in some parts of the Archipelago, it has been provided that the military governor should be given control of the appointment and arming of the municipal police, and that in all provinces where a civil provincial government has not been established by the Commission the duties of the provincial governor, provincial treasurer, and provincial "fiscal" (prosecuting attorney) shall be performed by military officers assigned by the military governor for these purposes. It has been further provided that in these provinces the military governor shall have power, through such subordinates as he may designate for the purpose, to inspect and investigate at any time all the official books and records of the several municipalities, and to summarily suspend any municipal officer for inefficiency, misconduct, or disloyalty to the United States. If, upon investigation, it shall prove that the suspended officer is guilty, the military governor has power to remove him and to appoint his successor should he deem such a course necessary in the interest of public safety.

It is thought that where the necessity still exists for active intervention on the part of the military governor it will ordinarily be desirable to allow the towns to retain their existing organization until such time as conditions shall improve; but should it prove necessary or desirable in individual instances to put the new law into operation in such provinces, it is felt that the above provisions will give to the military governor ample power to deal with any situation which can arise, and he has expressed his satisfaction with them.

There are at the present time a considerable number of provinces which, in the judgment of the Commission, are ready for a provincial civil government. It is believed that in the majority of cases it will be possible to organize all the municipalities of a province, creating at the same time a civil provincial government. So soon as civil government is established in any province, power to remove officials for inefficiency, misconduct, or disloyalty, and, should public safety demand it, to fill the offices thus made vacant, is vested in the civil authorities.

The law does not apply to the city of Manila or to the settlements of non-Christian tribes, because it is believed that in both cases special conditions require special legislation.

The question as to the best methods of dealing with the non-Christian tribes is one of no little complexity. The number of these tribes is greatly in excess of the number of civilized tribes, although the total

number of Mohammedans and pagans is much less than the number of christianized natives. Still, the non-Christian tribes are very far from forming an insignificant element of the population. They differ from each other widely, both in their present social, moral, and intellectual state and in the readiness with which they adapt themselves to the demands of modern civilization.

The necessity of meeting this problem has been brought home to the Commission by conditions in the province of Benguet. The Igorotes who inhabit this province are a pacific, industrious, and relatively honest and truthful people, who have never taken any part in the insurrection, and who have rendered our forces valuable service by furnishing them with information, serving as carriers, and aiding them in other ways. They certainly deserve well of us. They are, however, illiterate pagans, and it is stated on good authority that there are not three Igorotes in the province who can read or write. They are uncomplaining, and when wronged fly to the mountain fastnesses in the center of the island instead of seeking redress.

The wonderful climate of their province, as well as its great mineral wealth, make it well-nigh certain that there will be in the near future a large influx of Americans and Europeans. The situation is further complicated by the fact that there are living among the Igorotes a considerable number of civilized Ilocanos, who display a tendency to take undue advantage of their less civilized neighbors when opportunity offers. It is necessary, on the one hand, that the present inhabitants should be granted the protection which they have well earned, and on the other, that they should be gradually accustomed to the ways of civilized people, which it is believed they will readily adopt. They should also be given an opportunity for elementary instruction, which they earnestly desire if they can have it without being forced to change their religious beliefs.

The conditions in Benguet may be taken as fairly typical of those which prevail in many other provinces, populated in whole or in part by harmless and amiable, but ignorant and superstitious, wild tribes. The Commission has already passed an act for the establishment of township governments in this province, and it is believed that this measure will serve as a model for other acts necessitated by similar conditions in other provinces. The division of the province into townships and wards is provided for. The government of each township is nominally vested in a president and council, the latter composed of one representative from each ward of the township. The president and vice-president are chosen at large by a *viva voce* vote of the male residents of the township 18 or more years of age, and the councilors are similarly chosen by the residents of the several barrios.

The difficulties arising from the complete illiteracy of the people are met by providing for the appointment of a secretary for each town,

who shall speak and write Ilocano, which the Igorrotes understand, and English or Spanish. He is made the means of communication between the people and the provincial governor, makes and keeps all town records, and does all clerical work.

The president is the chief executive of the township and its treasurer as well. He is also the presiding officer of a court consisting of himself and two councilors chosen by the council to act with him. This court has power to hear and adjudge violations of local ordinances. It also has jurisdiction in civil cases involving not more than \$200, provided the parties to the suit make written application for a trial of their case and agree in writing to abide by the finding.

The president has power to direct the making of arrests in criminal cases for misdemeanors not within the jurisdiction of the court, to carry out a preliminary investigation into the facts, and if the guilt of the prisoner appears probable, to send him, together with the findings in the case, to the governor of the province. One police officer (constable) is allowed to each township, but it is provided that the question of any additional police force shall be left to the military governor, as well as the question of what arms shall be allowed to the police and to other township officers or residents. Rules are laid down for the organization and work of the council, which is given considerable power, but its acts are made subject to the approval of the provincial governor, and it is further provided that, should any given council prove unfit to exercise the power given it, or fail to do so, the provincial governor may adopt suitable measures for the carrying out of the provisions of the law.

It is believed that, by encouraging the municipal councils to attempt to make ordinances and then giving them the benefit of the criticism and suggestion of the provincial governor with reference to such attempts, they may be gradually taught much needed lessons in self-government, while sufficient power is given to the governor to enable him to nullify harmful measures and to take the initiative when a council fails to act.

The Igorrotes are tillers of the soil, and a few of the inhabitants of each township have acquired very considerable wealth. It is provided that they shall be allowed to declare the value of their property before the presidents of the several townships and that their declaration shall be accepted as true, unless called into question by the provincial inspector or by some resident of the province, in which case the matter shall be determined by a board consisting of the provincial governor, the provincial secretary, and the president of the township. Those who own property to the value of 200 pesos or more are taxed annually one-half of 1 per cent of its estimated value. Males 18 or more years of age whose total property is worth less than 200 pesos are excused from the payment of a property tax, and in lieu thereof pay a flat

annual tax of 1 peso each. All the funds thus raised go into the township treasury, and are expended by the president for the benefit of the township, on order of the council, subject to the approval of the provincial governor.

As a check upon the necessarily wide powers given to the provincial governor, it is provided that a popular representative shall be annually elected, whose privilege and duty it shall be to communicate directly with the chief executive of the insular government, should the provincial governor abuse his powers.

It is hoped and believed that under this system the governor of the province of Benguet will be able rapidly to improve the condition of its inhabitants. In the past they were in many instances practically enslaved by the Spaniards as "polistas" and were forced to render involuntary services, for which they received no compensation. It has been learned that, even at the present time, the municipal authorities in some of the Ilocano towns, in the plains below, lay hold of every Igorrote who passes through and compel him either to carry a heavy burden into the mountains or to pay twenty cents (a day's wages) for immunity; while formerly not only were the Igorrotes compelled to work on the roads without pay, but they were even forced to serve in the houses of Spaniards and civilized Filipinos without compensation. In some cases they were not even given food.

In view of the foregoing facts, the compelling the inhabitants of the province to render involuntary service, either as "polistas" or in any other capacity, has been absolutely prohibited, except for the satisfaction of unpaid taxes, license fees, or fines. A violation of this provision has been made a misdemeanor, punishable by a fine of not more than five hundred dollars Mexican, or imprisonment for not more than one year, or both, in the discretion of the court.

A CIVIL PROVINCIAL GOVERNMENT FOR BENGUET.

It is proposed to create a civil provincial government before organizing the townships of Benguet under the act just described, and the Commission has passed a law providing that this government shall consist of a provincial governor, a provincial secretary, and a provincial inspector. The governor is the chief executive of the province, and will act as its treasurer until such time as the appointment of a provincial treasurer shall become necessary. Until a departmental government shall be established which includes the province of Benguet, he will report directly to the military governor of the islands.

It is his duty to make known to the people of his province all general laws or governmental orders which concern them, and to pass upon the ordinances and acts of the several township councils. Should the council of any township fail to enact measures necessary to carry

out the provisions of the law for the organization of such townships, the governor is authorized to issue suitable orders to this end. He has power to suspend any township official charged with misconduct or with disloyalty to the United States, and after proper notice and hearing to remove or reinstate him; but such suspension, removal, or reinstatement must be reported to the Commission, who may approve or revoke the same.

The governor is made *ex officio* a justice of the peace, and has power to issue warrants for the arrest of persons charged with the commission of offenses, to make preliminary examinations, and to commit the accused for trial by court of first instance for the provinces of Union and Benguet, if the facts warrant such action. He is also empowered to take bail from accused persons if the cases are bailable. He is the presiding officer of a board of assessors for determining, for purposes of taxation, the value of real estate in regard to which dispute arises, and he has general control of all constabulary and police forces in the province, subject to the supervision of the chief executive of the insular government.

The provincial secretary is the custodian of all official records and the interpreter and translator for the provincial governor, as well as the recording officer in all judicial and official proceedings over which the provincial governor presides.

It is the duty of the provincial inspector to visit and inspect the several townships of the province at stated intervals and on special occasions, as the provincial governor may direct, and to report to the latter the result of his investigations. As the province of Benguet is extensive and it takes some two weeks to make the round of the townships, the office of inspector is important, for the governor must keep in touch with conditions in the several townships without absenting himself too frequently and for too long periods from the capital.

The capital of the province is changed from Trinidad to Baguio. The site of the latter town is in every way suitable, while Trinidad is situated at the bottom of what was once a volcanic crater and clouds are constantly caught and held in the valley where it lies, causing a great deal of fog. On this account the Spaniards had under consideration the changing of the capital to some other and more suitable point. Furthermore, it is anticipated that Baguio would be the terminal of a branch railway connecting Dagupan or Sual with Benguet, an additional reason for the transfer.

It should be clearly understood that the provincial and municipal governments provided for Benguet are special measures designed to meet the needs of a primitive and illiterate people. They are in no sense indicative of what it is intended to give the civilized tribes.

It is proposed to establish a school for English and rudimentary manual training at Baguio in the near future, and to provide for the vaccination of the entire population of the province.

THE MANILA LIQUOR TRAFFIC.

The only legislation thus far undertaken by the Commission which bears directly on the conduct of municipal affairs in the city of Manila is a law regulating the sale of spirituous, malt, vinous, or fermented liquors.

It has proved difficult to obtain accurate information as to the number and character of places at which liquor was sold in this city prior to American occupation. According to the best information available, there were 14 "cantinas," corresponding more or less directly to our saloons or bars. It has been definitely ascertained that there were 2,206 shops where the so-called native wines were sold at retail, and it is believed that there were not less than 4,000 such shops. Practically all drug stores and groceries sold wines and liquors. No municipal license was required, the payment of an industrial tax conferring the right to sell intoxicating beverages.

Until January 4, 1900, there was, strictly speaking, no liquor-license law in Manila. All licenses to sell liquor, of whatsoever class, were general business licenses, the fee for which was only \$3 plus a \$1 license stamp. On June 30, 1899, such business licenses had been issued to 214 saloons. Fourteen of them had been canceled, leaving 200 outstanding.

Up to February 1, 1900, there were issued 28 more business licenses to saloons, of which 4 were canceled, leaving outstanding a total of 224.

On January 4, 1900, a general order was issued by the military governor providing regulations for the issue of saloon licenses, properly so called, to take effect February 1, 1900, and all outstanding saloon licenses were canceled on January 31. Under the provisions of the above-mentioned order there were issued between February 1 and June 30, 80 licenses for wine, liquor, and beer saloons and 87 licenses for wine and beer saloons, making a total of 167 licenses issued. Of these, 12 were revoked or surrendered, leaving 155 outstanding on June 30. This number includes hotel and restaurant liquor licenses. On November 23, 1900, the following licenses were in force:

First-class bar licenses (wine, liquor, and beer).....	43
Second-class bar licenses (wine and beer).....	41
First-class bar licenses, with hotel privilege.....	17
Second-class bar licenses, with hotel privilege	7

making a total of 108, as against 155 on June 30 and 224 on February 1.

Meanwhile the number of shops at which the so-called "native wines" were sold at retail had been reduced from approximately 4,000 at the time of the American occupation to 408 on November 23, 1900. It will be seen, therefore, that since February 1, 1900, there has been

a steady and material reduction in the number of institutions which could be properly classed as saloons, while the number of retail shops for the native "wines" has been reduced since American occupation by approximately 3,600. This last fact is especially important, as the so-called wines (vinos) are concocted by mixing strong and often impure alcohol with various oils and flavoring extracts, and are, in most instances, harmful in the extreme if imbibed in any considerable quantity. In fairness to the native it should be stated that he ordinarily uses his "vino" very temperately, and consequently suffers comparatively little harm.

In the law above referred to the Commission has imposed many new restrictions on the sale of intoxicants, and has forbidden saloons, after April 1, 1901, on certain of the principal streets and plazas, namely, the Escolta, Calle Rosario, Plaza Moraga, Plaza Cervantes, Calle San Fernando, and a part of Calle Nueva.

The following licenses and fees are provided for:

Name of license.	Liquors allowed sold.	Cost per year.
		<i>Pesos.</i>
First-class bar	Fermented, vinous, malt, or spirituous	1,200
Second-class bar	Fermented, vinous, or malt	700
Theater	Fermented, vinous, malt, or spirituous	1,600
First-class hotel	do	1,000
Second-class hotel	Fermented, vinous, or malt	600
Druggists' liquor	Fermented, vinous, malt, or spirituous	100
Grocery liquor	do	100
Brewers'	Brewery products	1,200
Distillers'	Distillery products	600
First-class wholesale liquor	Fermented, vinous, malt, or spirituous	1,200
Second-class wholesale liquor	Fermented, vinous, or malt	600
Third-class wholesale liquor	Fermented, vinous	52
Native-wine license	Native "wines"	8

All laws and regulations heretofore governing the issue of licenses for the sale of liquor are repealed. Violations of the minor provisions of the law are punishable upon conviction by a fine not exceeding 200 pesos, or imprisonment for six months, or both, in the discretion of the trial court, for each offense. A violation of any provision of the act may subject the offender to having his license revoked, in the discretion of the provost-marshal-general, while, if he is convicted of selling, giving away, or otherwise disposing of any liquor not allowed by his license, or during the hours wherein the sale of such liquor is prohibited, or of selling, giving away, or otherwise disposing of any intoxicating liquor to any intoxicated person, the license becomes null and void as a consequence of conviction.

It is provided that none of the so-called native "wines" shall be sold except by holders of native-wine licenses and that such holders shall not be allowed to sell intoxicants of any other sort whatever. The license fee for dealers in native wines has been placed at what might seem a ridiculously low figure, because the capital invested in the business amounts to but a few dollars and because experience has shown

that direct control of the provost-marshal-general is the most efficient means for holding this traffic in check. The selling of native "wines" to soldiers of the United States, under any circumstances, is strictly prohibited, because the soldiers are inclined to indulge in these injurious beverages to excess, with disastrous results. As already stated, the Filipino ordinarily uses them moderately, if at all.

Fortunately he does not to any considerable extent frequent the American saloon. With a view to preventing his being attracted there, the playing of musical instruments or the conduction or operation of any gambling device, phonograph, slot machine, billiard or pool table, or other form of amusement in saloons, bars, or drinking places is prohibited.

License fees are now imposed for the first time on apothecary shops, drug stores, and groceries which sell liquor.

The granting of licenses for the sale of any intoxicating liquor in the public markets, "kioskos," booths, or stands situated in the public streets or plazas, or by street venders or peddlers, is prohibited.

It is further provided that no application for a license or for a renewal thereof to conduct a first or second class bar shall be received until the applicant shall have published, at his own expense, a notice in six consecutive editions of one Spanish and one English newspaper, to be designated by the provost-marshal-general.

The object of this provision is to give property owners and residents in the vicinity where it is desired to establish such bar or saloon an opportunity to protest to the provost-marshal against the granting of the license. The provost-marshal will not grant licenses in the face of protest on the part of such property owners or residents.

It is confidently anticipated that the increased charges imposed on the liquor traffic, the restriction as to streets on which a liquor business may be conducted, and the wide discretionary powers given to the provost-marshal-general will materially reduce the number of places in the city at which intoxicants are sold.

MINERAL WEALTH AND THE MINING INDUSTRY.

It is difficult at the present time to make any accurate general statement as regards the mineral resources of the Philippine Islands. There has never been any mining, properly so-called, in this archipelago up to the present time. The mining fields have never been thoroughly prospected, and even where very valuable deposits were known to exist they were worked, if at all, in a haphazard and intermittent fashion.

Present indications are that the near future will bring a great change in the mining industry. According to the chief of the mining bureau there are now some twelve hundred prospectors and practical miners scattered through the different islands of the archipelago. Of these,

probably 90 per cent are Americans. They are for the most part men of good character. They are pushing their way into the more inaccessible regions, furnishing their own protection and doing prospecting of a sort and to an extent never before paralleled in the history of the Philippine Islands. The result is that our knowledge of the mineral resources of the group is rapidly increasing. When all due allowance is made for prospectors' exaggerations, it is not too much to say that the work thus far done has demonstrated the existence of many valuable mineral fields. The provinces of Benguet, Lepanto, and Bontoc in particular form a district of very great richness.

COPPER.

In the province of Lepanto, at Mancayan and Suyoc, there are immense deposits of gray copper and copper sulphide, and running through this ore are veins of gold-bearing quartz, which is more or less disintegrated and in places is extremely rich. This copper ore has been assayed, and the claim is made that it runs on the average 8 per cent copper, while gold is often present in considerable quantities. The deposits are so extensive as to seem almost inexhaustible.

The Commission has been unable to verify the statements as to the extent and richness of these copper deposits through its own agents, but the authority for them is such that they are believed to be substantially correct.

As early as 1856-57 two concessions were granted to the Cantabro Philippine Mining Company, and an attempt was made to exploit them and market their product. Rude methods of mining, ruder methods of extracting the metal, and still more rude and primitive methods of transportation, combined with lack of sufficient capital and suitable labor, led to the abandonment of this attempt, and for more than twenty years the property, which in itself is a small claim upon the immense ledge above referred to, has been occupied only to the limited extent required by the Spanish mining laws to prevent the cancellation of the concession. The officer at present in charge of the mining bureau characterizes this deposit as an "undoubted bonanza." The main thing necessary for its exploitation is the opening up of a short line of communication with the coast.

COAL.

Lignites are known to exist in Luzon, Bataan (the island, not the province), Mindoro, Masbate, Negros, Cebú, Mindanao, and other islands. Some of the deposits are very extensive. As yet, they have been worked only at or near the surface. It is therefore remarkable that the samples thus far obtained should prove to be as good as is shown by actual analysis. A comparative table follows, giving analyses of Cardiff, Australian, and Wyoming coals, as well as some of the Philippine

coals, in order that the latter may be compared with the former. In this table will be found the famous Rock Springs commercial and locomotive coals; the Union Pacific; the Freemont, Elkhorn and Missouri Valley (C. and N. W. R. R.); the Burlington and Missouri in Nebraska (C., B. and Q. R. R.), and the Cambria Coal Mining Company's coking coal, all of them lignites and all of them successful steam coals.

Analysis of Philippine coals, compared with Cardiff, Australian, and Wyoming coals.

Name of mine.	Location.	Fixed car-bon.	Volatile matter.	Water.	Ash.	Caloric volatile matter.	Caloric fixed car-bon.	Remarks.
		Per cent.	Per cent.	Per cent.	Per cent.			
Cardiff	England	83.00	8.60	4.50	3.90	842	7,590	91.60 fuel.
Newcastle and Sidney	Australia	71.45	16.25	2.90	9.40	432	6,205	87.70 fuel. Mixed.
Santa Rosa	Cebu	57.94	31.75	9.23	1.08	674	5,353	89.69 fuel.
Van Dyke	Rock Springs, Wyo.	56.50	34.50	6.25	2.75			91.00 fuel. Commercial Rock Springs.
Sweetwater Coal Co.	do	55.70	36.95	5.55	1.80			92.65 fuel. Commercial Rock Springs.
Union Pacific No. 1	do	55.60	36.42	5.38	2.60			92.02 fuel. Union Pacific R. R. Rock Springs.
Caridad	Cebu	54.56	34.53	9.60	1.31	1,369	5,643	89.09 fuel.
Dillon	Rawlins	54.00	32.85	6.55	6.60			86.85 fuel. Commercial steam.
Esperanza	Cebu	51.96	37.56	7.80	2.68	1,632	5,829	89.52 fuel.
Magallanes	do	49.50	35.08	11.18	3.62	1,491	5,490	84.53 fuel. 0.67 foreign matter.
Union Pacific No. 7 ...	Almy, Wyo	48.75	34.88	7.87	9.00			83.68 fuel. Central Pacific and Union Pacific R.R. locomotive.
Union Pacific No. 2 ...	Carbon, Wyo ...	48.80	35.43	7.42	8.85			83.78 fuel. Union Pacific R. R. locomotive.
Deer Creek Coal Co ...	Glenrock, Wyo ..	47.75	33.08	13.82	5.40			80.78 fuel. Freemont, Elkhorn and Missouri Valley R. R. locomotive.
Grinnell	Sheridan, Wyo..	44.75	33.18	14.42	7.65			77.93 fuel. Burlington and Missouri River R. R. in Nebraska locomotive.
Burgess	do	44.70	37.55	13.06	4.70			82.25 fuel. Commercial steam.
Antelope	Cambria, Wyo ..	44.25	39.38	6.72	9.65			84.63 fuel. Black Hills coke.
M. and M	Buffalo, Wyo....	44.20	34.30	14.70	6.80			78.50 fuel. Commercial steam.
Jumbo	Cambria, Wyo ..	43.65	40.18	5.72	10.50			83.78 fuel. Black Hills coke.
Inez Coal Co	Inez, Wyo	42.50	36.05	14.65	6.80			78.55 fuel. Freemont, Elkhorn and Missouri Valley locomotive.
Cataingan	Masbate	41.40	43.31	10.50	4.88			84.71 fuel. 0.41 sulphur.
Bulalacao	Mindoro	41.06	42.40	12.50	4.30			83.20 fuel.
Becker	Sheridan, Wyo ..	38.75	44.37	8.72	8.21			83.12 fuel. Commercial steam.
Union Pacific No. 1 ...	Hanna	38.70	35.25	14.10	11.90			73.95 fuel. Union Pacific R. R. locomotive.

Testimony is unanimous to the fact that the Philippine coals do not clinker, nor do they soil the boiler tubes to any such extent as do Japanese and Australian coals. Some of them have been given practical tests in steamers engaged in the coasting trade of the archipelago, with very satisfactory results as regards their steam-making properties.

The extensive fields near Bulacacao, in southern Mindoro, are within 4 to 6 miles of a harbor which gives safe anchorage throughout the year and which has water deep enough for the largest ocean-going vessels. Some of the Cebú deposits are also conveniently situated with reference to harbor facilities. It is to be confidently expected that the coals will play a very important part in the future development of the archipelago.

GOLD.

The outlook as to gold mines grows more favorable as the operations of prospectors are extended. Modern gold-mining machinery has never been used in the Philippines. Igorrote miners in the Benguet-Lepanto-Bontoc district discard all rock in which there is not visible a considerable quantity of free gold. Prospectors in this region claim to have located very extensive deposits of low-grade, free-milling ore, which will yield large and certain returns as soon as concessions can be secured and machinery put in place. Unless the statements of those who have been working in this region are utterly false, it is true that very valuable deposits have been located and that extensive operations will be undertaken as soon as claims can be granted and machinery placed. At all events, it is certain that the men who have located these deposits have sufficient faith in them to camp on them and wait month after month for the time to come when they can establish their claims.

IRON.

Extensive deposits of high-grade iron ore are known to exist, but it would seem that their development must be preceded by the development of the coal fields.

NECESSITY FOR MINING LAWS AND FOR SETTLEMENT OF EXISTING CLAIMS.

There can be no question that it is to the interest of the inhabitants of this archipelago to have its mineral resources developed. It is equally certain that the men who have faced manifold dangers in locating valuable mineral properties, and who are ready and anxious to develop them, should be given an opportunity to do so at the earliest practicable time.

Although, as has been stated, the character of the prospectors and miners in the archipelago is above the average, the presence of a considerable body of such men who have found mineral deposits, but are forced to endure a long period of inactivity, pending the time when they can establish their claims and begin active operations, is not a desirable factor in the present situation. The reports which are being sent out are of such a character as to make it highly probable that the

number of prospectors and miners will be greatly augmented in the near future. It seems, therefore, most important that immediate steps should be taken to make it possible for the government established in these islands to grant mining claims.

There is, furthermore, necessity for some tribunal empowered to decide questions arising in regard to Spanish mining grants and so-called "titles," although the word "title" is in this case a misnomer, for under Spanish law only concessions were granted, the title being continued in the Crown. The ownership of the concessionary was limited to a license of indeterminate length, allowing him to extract certain minerals and to dispose of the same and to convey to others his rights by deed. This "title" was at all times subject to eleven general conditions, and failure to comply with any one of them made it possible for the Crown to cancel the concession.

Endless questions are arising as to the status of concessions granted by the Spanish Government to which the titles had been perfected or were in process of perfection. For purposes of convenience, claims are here referred to as "first-class claims" where title has been perfected, and as "second-class claims" where title was in process of perfection.

FIRST-CLASS CLAIMS (SPANISH GRANTS RECORDED).

Of such concessions there were recorded and uncanceled upon the records at the time the Philippine Islands were ceded by Spain to the United States no less than 481. These claims were embraced in 152 "expedientes" (or petitions); in other words, there were 152 different mines. They were distributed among the various minerals as follows:

	Claims.	Area.
		<i>Square meters.</i>
Gold	388	19,974,512.26
Coal	116	17,400,000
Copper	2	166,849.24
Iron	9	1,137,571.09
Sulphur	8	180,000
Marble	4	80,000
Petroleum	4	600,000
Kaolin	4	80,000
Guano	1	20,000
Total	491	39,638,932.58

Some of these grants are doubtless invalid because of long abandonment, but the formal entry of cancellation has not been made upon the records.

SECOND-CLASS CLAIMS (INCOMPLETE SPANISH GRANTS).

When the Philippine Islands were ceded to the United States there were proceedings pending in the department of mines for the survey and official demarcation of 113 claims, embracing 10,941,614.71 square

meters, and contained in 37 petitions, and divided among the minerals as follows:

	Claims.	Area.
		<i>Square meters.</i>
Gold	61	3,531,614.71
Coal	49	7,360,000
Marble	1	20,000
Trachyte	2	40,000
Total	118	10,941,614.71

These claims had not yet reached a stage where they could be closed by a concession, since, by the terms of the Spanish law, the act of demarcation, based on a definite official survey by a public surveyor, was a condition precedent to the granting of a title, and was the only means by which the lands could be segregated from the public domain.

THIRD-CLASS CLAIMS.

There remains a third class of claims, viz, those which it was attempted to establish through the mining bureau at Manila by the filing of petitions there between May 4, 1898, and March 30, 1899. It would appear that there was no warrant of law for the filing of such petitions, and that they have no legal value. Nevertheless, they number 1,618 and embrace 149,288,134.37 square meters. They are divided among the minerals as follows:

	Claims.	Area.
		<i>Square meters.</i>
Gold	1,006	60,348,134.37
Coal	467	70,060,000
Copper	108	15,160,000
Iron	16	2,400,000
Sulphur	3	450,000
Marble	10	200,000
Granite	4	80,000
Petroleum	4	600,000
Total	1,618	149,288,134.37

As already stated, it is of great importance that some tribunal should be established at the earliest possible date by which the legal status of these claims may be determined. In many if not all instances the disturbed conditions which have prevailed in the archipelago since 1896 have prevented the owners of claims of the first class from fulfilling all the conditions precedent to keeping their titles clear. They desire to pay the taxes due on this property, if it be held that they are the rightful owners on the one hand, and on the other they can hardly be compelled to pay them unless their ownership is recognized. They also, and very naturally, desire to prevent others from squatting on their claims. Similarly, those who had begun to perfect titles to

mining concessions prior to the change of sovereignty are anxious to learn what their rights are.

The island government is interested in the clearing up of titles to these mining properties on account of the revenue which would result. The owners, or would-be owners, are interested on account of the possible profit to themselves. The people at large are interested on account of the increased opportunities for the employment of labor which would accompany the active development of mineral deposits. There is every reason, therefore, why a mining code should be enacted for these islands at the earliest practicable time and suitable provision made for determining the rights of all claimants to mining properties. It is believed that this whole matter should be dealt with here by the legislative body at present existing in the islands, but the Commission has held that it can not determine questions arising as to existing claims nor consider applications for new concessions until duly authorized by Congress. In view of the importance of the interests involved, such authorization is urgently requested.

FORESTRY.

The timber of the Philippine Archipelago forms one of its most important natural sources of wealth. The timber-producing trees have been classified in order of their commercial value as follows: Superior group, 12 species; first group, 17 species; second group, 49 species; third group, 74 species; fourth group, 200 species; fifth group, 33 species; total species, 385. It is certain that there still remain more than 50 species not yet classified. Included in this list are very hard woods, capable of taking a beautiful polish; woods that resist climatic influences and are proof against the attacks of white ants; woods especially suited to use for sea piling, on account of their imperviousness to the attacks of *Teredo navalis*, or for railroad ties, because they last extremely well when placed in the ground; in short, there are woods for every imaginable use.

There is a great variety of trees yielding valuable gums, and rubber and gutta-percha are abundant in Mindanao and Tawi-Tawi. At least 17 dyewoods are produced within the limits of the archipelago, while other trees yield valuable essential oils or drugs. It has been estimated by the present head of the Forestry Bureau, from such data as he has been able to secure, that there are not less than 40,000,000 acres of forest lands in the archipelago.

Under the Spanish administration a force of 66 expert foresters and 64 rangers, with 40 other subordinates, such as clerks, draftsmen, etc., formed the personnel of the forestry department. The service was organized in 1863, and throughout its history the higher officials were selected from the Spanish corps of engineers. No Filipino was per-

mitted to hold any of the more important positions. In addition to the care of the forests, the department had in charge the survey of all public lands. The annual income during the last years of the Spanish régime was approximately \$150,000, Mexican.

The present forestry bureau was organized on the 14th of April, 1900, under General Order No. 50, which placed Capt. George P. Ahern, Ninth United States Infantry, in charge, making no specifications whatever as to his duties. He received authority to employ 4 foresters, 2 rangers, a stenographer, and a translator. This force was gradually increased until, on the 18th of September, it consisted of a translator, a stenographer, a chief assistant, 7 assistant foresters, 1 head ranger, and 13 rangers.

On July 1 regulations prepared by the forestry bureau and governing the utilization of the forest products of state lands were published as General Order No. 92. These regulations were based on those in force under Spanish sovereignty, but the latter were somewhat condensed and a few changes were introduced. The old blank forms were kept and additional ones provided for. Under the new rules the prices per cubic foot charged by the Government for timber cut on public lands are as follows: Superior group, 7 cents; first group, 5 cents; second group, 4 cents; third group, 1½ cents; fourth group, 1 cent; fifth group, ½ cent (United States currency). There are given lists of the trees of the several groups, with their common names and their scientific names, so far as the latter have been ascertained, together with rules governing the cutting and measuring of timber and the payment of the charges thereon, as well as provisions as to how the various gums shall be gathered.

It seemed extremely important that an order allowing the cutting of timber should be put into force at the earliest possible time, as there was practically a lumber famine at Manila and other important points in the archipelago, while the destruction of buildings incident to the war, and the increased demand for good dwelling houses, resulting from the large influx of Americans, made it imperative that provisions should be made so that the felling of trees and marketing of lumber might lawfully begin. The regulations were, therefore, necessarily somewhat hastily compiled by those having the work in charge.

The Commission is now able to profit by the practical results obtained through putting them into force, and is of the opinion that the clerical work connected with the cutting and marketing of timber can be simplified considerably with profit to all concerned. It seems probable that the rates charged, which are greatly in excess of those charged under the Spanish tariff, should be somewhat reduced. The whole matter will be made the subject of careful investigation and legislative action in the near future.

Early in September the Commission investigated the affairs of the forestry bureau and learned that no attempt had been made to enforce the forestry regulations outside the island of Luzon, even in such great commercial centers as Iloilo and Cebú. With a view to the immediate increase of its efficiency, the forestry bureau was reorganized, so as to consist of an officer in charge, an inspector, a botanist, a chief clerk and stenographer, a translator, a law clerk, a record clerk, 10 assistant foresters, and 30 rangers, the existing force of foresters and rangers to be augmented gradually, as occasion might require, until the number above indicated was reached.

Active steps are now being taken toward the location of foresters and rangers at important points throughout the archipelago as fast as circumstances will permit.

The present monthly collections of revenue from forest products are about \$8,000 (Mexican). This sum should be largely increased in the near future. If the statements of the chief of the forestry bureau are correct, the forests of the Philippine Islands are more extensive and more valuable than those of India. It is of the utmost importance that the wanton destruction of valuable timber which has been allowed to go on here in the past should be checked at the earliest practicable time, while, with the exercise of proper supervision over the cutting of timber and the construction of better roads, the annual revenue from the sale of forest products should soon become a very important source of income. The chief difficulty which confronts us at present is the lack of honest and active subordinate officials.

It is absolutely necessary that the men who occupy these posts should be familiar with the more important of the different kinds of woods, so that they may be able to survey consignments of timber and make proper collections thereon. The men at present used for this work were, almost without exception, formerly employed for it under the Spanish régime, and in the view of the chief of the bureau many of them are corrupt. They are exposed to severe temptation, for it is a simple matter to transfer a wood from the class in which it belongs to a lower class, thereby saving a considerable sum to the owner, who is often only too willing to give a part of what he can make in this way to the forester or ranger with whom he is dealing in order to escape the payment of the full amount due.

It is believed that competent men should be trained on the ground for these positions as speedily as possible, and that meanwhile a close inspection should be maintained over the work of the present incumbents in office, who have been informed that if they are detected in dishonesty they will not only be dropped from the service of the forestry bureau, but will be ineligible for appointment to any office which falls under the civil-service law.

Great difficulty has been experienced in securing the services of a competent man for inspector, but it is hoped that such a man may soon be found.

The Commission has cabled to Washington for four experienced foresters with a knowledge of Spanish and of tropical botany. These men, upon their arrival, will enable us to put the service in a much more satisfactory condition. It is very important that responsible and fully qualified white men should be stationed at the more important centers of the lumbering industry in these islands if the forests are to be exploited intelligently and the Government is to receive proper compensation for the timber cut on public lands.

It is believed that nine-tenths of the timber standing in many of the forests of these islands might be removed with great profit to the Government and actual improvement to the forests, inasmuch as this would give opportunity for rapid growth to the trees left standing.

MARKET FOR AMERICAN PRODUCTS.

It is a remarkable fact that, in spite of the disturbed condition of the country and the consequent interference with business, there has been a steady and rapid increase in the customs receipts, culminating with the month just past, during which they reached a total of \$1,888,837.12 Mexican. This, too, in spite of numerous drawbacks apart from those occasioned directly by the war. The tariff has been such as to inflict a practically prohibitory duty on some important imports. The number of cascos and lighters has been inadequate for the prompt discharge of vessels arriving in port, and the custom-house facilities for the storing of goods has proved insufficient, so that much delay and heavy expense have been caused to importers. The custom-house facilities are being increased as rapidly as possible, and it is believed that they will soon become adequate, while the building of cascos and lighters is progressing more and more rapidly as time goes by.

The completion of the breakwaters inclosing the new port of Manila and the dredging of the basin thus formed will be a very great advantage to importers in this market. At present vessels are sometimes compelled to lie idle for weeks during the typhoon season, owing to the roughness of the bay. This difficulty will be obviated when the breakwaters are completed and the basin is dredged.

Anything that favors reduction in freights and a consequent lowering of the prices at which American goods can be placed on the market here will greatly increase their use among the common people. It is highly desirable that goods should be shipped directly to Manila. When they are transhipped at Hongkong it is reported that there is considerable loss from careless handling, and freight rates from Hongkong to Manila are exorbitant. Yet many importers are obliged to

order their goods sent by this route at present, as the long delays at Manila in unloading make shipowners unwilling to send their vessels here, or lead them to charge very high freight rates in order to compensate themselves for the time lost in port. The Commission has already provided for the completion of the work outlined on the new port at the earliest possible time.

The coasting trade of the islands is at present in the hands of a few large companies; in fact, the bulk of it is in the hands of a single concern. Lack of competition enables the owners of vessels engaged in this trade to fix freight rates, which are so high as to interfere considerably with the marketing of imported goods at moderate prices. The coasting trade is extensive, and is certain to increase rapidly as order is restored and means of inland communication are improved. There is at present a strong demand here for light-draft vessels, suitable for entering the smaller ports of the archipelago, and for large steam launches and tugs, and this demand seems likely to continue for some time. The bringing of such vessels here would result in the increased use of imported goods through the consequent cheaper rates at which they could be placed on the market, and at the same time would yield a handsome profit to their owners.

American exporting houses can not be too strongly urged to study carefully the Philippine market and to familiarize themselves with the tastes and prejudices of the people rather than to ship their goods here haphazard and take chances on their proving acceptable.

It is believed that this country will eventually afford a good market for American agricultural implements and machinery. Agriculture is in its infancy here, and the tools and machinery in use are, for the most part, crude in the extreme. While there are some steam sugar mills in Luzon and Negros, yet the machinery employed is out of date when compared with that in use in the Hawaiian Islands. In very many instances cane is still crushed between stone or wooden rollers turned by draft animals. If sugar can be advantageously grown and marketed with such machinery and methods as are at present employed, it is certain that profits would be enormously increased were thoroughly modern machinery and methods to be introduced.

For the successful cultivation of large sugar estates, steam plows must be employed in considerable numbers. The sugar land is admirably adapted for their use, being for the most part level and free from stones. The water buffalo, which is at present used for plowing, is a very unsatisfactory sort of draft animal at the best, while the mortality among buffaloes from rinderpest has recently reached 60 to 80 per cent of the total number in many provinces. Other epidemics of rinderpest in the past have produced similar or worse results. In many provinces the people have been unable to plant their crops during the present season through lack of draft animals for plowing, and were

steam plows available now their owners might make handsome profits by breaking up land at a fixed price per acre.

The plows now in common use are wretched affairs, and the harrows are little better. Such things as our disk harrows, horse cultivators, etc., are entirely unknown. There are no good hoes to be had in the islands, the implements in common use being more like adzes.

Native planters are already more or less alive to the necessity of portable tramways for bringing cane to their crushes, and some of the more important sugar plantations have them, but there will be need of many more.

The Filipinos are to a considerable extent an imitative people. Were modern implements and sugar machinery of the sort mentioned to be simply placed upon the market and offered for sale here, they would probably not purchase; but were a few modern sugar estates established here, native planters would be quick to appreciate the advantages of improved machinery and implements.

Similarly, the methods employed in planting, cultivating, and harvesting rice are of the crudest. The rice is planted and harvested by hand. Most of it is threshed under the feet of men or animals. The hull is removed by pounding in wooden mortars, and winnowing is usually accomplished by tossing up grain and chaff in flat wooden baskets and allowing the wind to carry the chaff away. Improvement in the method of harvesting and in the implements used for the purpose is most important, as quantities of rice often spoil in the fields at harvesting time for lack of sufficient labor; while portable threshing, pearling, and winnowing machinery would speedily find its way into general use. A large steam pearling mill recently established on the line of the Manila and Dagupan Railway proved a very profitable investment.

The amount of drugs and chemicals imported is considerable and will increase. American exporters will have to compete with the German trade, but they ought to be able to do so successfully. It would seem that there was an especially good opportunity for the importation of manufactured drugs in the form of pills, pellets, etc., which hardly exist in the market to-day.

American horses have done quite well here when fed on imported hay and grain, but mules have done better. There can be no doubt that the mule is the most satisfactory draft animal which has ever been introduced into this country, and is destined to supplant the comparatively weak and slow-moving water buffalo on large estates.

It is believed that the market for wheat flour will greatly increase with the return of prosperity to these islands and the proposed reduction in the duty on it. The natives like bread when they once become accustomed to it, and the probable shortage of rice during the coming year will lead to the more extended use of flour.

It is considered certain that there will be a heavy increase in importations of American preserved meats and canned fruits and vegetables, although some very good canned fruits are at present imported from Spain. There will be a market for these commodities in provincial towns where they have been introduced by the troops, and it is confidently anticipated that changes in the tariff law, which will enable the marketing of them at a materially reduced price, will greatly increase their sale.

The people of these islands are very fond of jewelry, which should be somewhat gaudy to suit their taste. The watches at present marketed here have, as a rule, showy cases and dials and wretchedly poor works. It is not uncommon to find a native with a collection of a dozen watches, none of which will go. Good American watches, with suitable dials and cases, ought to supplant the cheap affairs which at present monopolize the market here.

These islands produced cotton in some quantity before the days of the Spanish Government tobacco monopoly, when the cultivation of cotton necessarily fell into neglect. It is now raised in a very small way in some of the northern provinces of Luzon, but tobacco is still the important crop in this region, and the people are slow to abandon an industry which is yielding them steady returns and embark in a new one with which they are not familiar, so that it is hardly likely that there will be much increase in the local cotton crop in the near future. It can be profitably woven into fabrics here, however, on account of the abundance of suitable and cheap labor, and the Commission is informed that there are several projects on foot for the establishment of extensive cotton mills in the islands, those interested intending to import American raw cotton.

Cotton cloth is one of the most important imports, and it would seem that there is no good reason why there should not be a good market for American goods. The German cloth at present brought into the islands looks well in the piece, but is very heavily clayed, poorly colored, and of inferior quality. The English cotton fabrics are of better quality, but are also clayed. The new customs tariff will be so adjusted as to place honest goods at a considerable advantage, and American manufactures will thus be favored.

It is particularly important that the tastes of the natives should be studied and met. When cotton goods of a certain kind have once proved acceptable and have come into general use, the call for them is steady, and the natives are apt to insist on having the particular quality and pattern with which they are familiar rather than something else which may be quite as good or even better, so that the difficulty comes in the initial introduction of the goods.

The iron and steel used in the Philippines must be imported for some time to come, for, although there are very extensive deposits of fine

iron ore in some of the islands, their development must be preceded by the development of the coal fields.

A number of electric or steam railway lines are projected, and several of them will doubtless be built as soon as concessions can be secured. This will create a market for railway iron and rolling stock.

There should be a good market here for tanned hides and for the manufacture of leather. The leather obtained by tanning the hides of water buffaloes is porous and soon rots in this moist climate; in fact, leather of any sort lasts a comparatively short time. It is chiefly used at present for harnesses, carriages, and boots and shoes. American boots and shoes are as yet hardly to be had here, but should find a ready sale. The natives are very fond of patent-leather and other showy shoes for state occasions, and although they may not use them enough to wear them out rapidly, the climate makes comparatively short work of them. The tastes of the people should be consulted by our exporters and suitable lasts made, as shoes shaped on American lasts would hardly be suited to the feet of these people. Many of the shoes at present used are made here by Chinese cobblers. Those that are imported come chiefly from Spain and Germany.

There will be a steadily increasing call for American electric machinery. At present Manila is the only city in the islands which has electric lights, the small plant at Iloilo having been burned. There are no electric railways in the islands, and it seems certain there will be a great future for them here.

Hand sewing machines are in steady demand. The bulk of the machines imported during the past year have come from Germany. The German machines are cheap, but not good. Cheap and well-made American machines ought to drive them out of the market.

The Filipinos are born musicians, and, under normal conditions, buy a good many pianos. Instruments intended for use in these islands should be so constructed so as to resist dampness. Other musical instruments are sold in some numbers. At present the bulk of them come from Germany.

There are considerable importations of paints and colors, but those in use here are, for the most part, very poor. The largest shipments received are from Hongkong, so that it is not possible, from the customs returns, to ascertain the countries from which they originally come. Germany and England seem to be the largest direct exporters to this country.

American edged tools are proving very acceptable to the people here, and the market for them is steadily growing.

Petroleum is one of the most important imports. It has been subject to an extremely high tariff, which will be materially reduced in the near future. The Manila representative of the Standard Oil Company states that he will reduce the price of oil by whatever

amount may be removed from the existing duties. He expresses the conviction that a reduction of 20 cents per case in the present market price would triple its use here. The steady increase in the price of cocoanut oil makes it cheaper in the end for the natives to sell their cocoanut oil and buy petroleum to light their dwellings and towns. A heavy increase in the importations of petroleum is confidently to be anticipated.

There is a steady demand for butter, cheese, and refrigerated meats, and it is likely to continue.

It is believed that a market might be developed here for California wines. At present the largest importations of wines come from Spain.

Bicycles are being imported in constantly increasing numbers, and the market for them is sure to grow steadily better. European bicycles were introduced about 1890, but were purchased only by wealthy residents, and the total number reached, it is said, was only about 200. Last year American bicycles were introduced, and there are now some 2,000 of them in this city alone. Projected improvements in the roads ought to exert a strong influence on the sale of bicycles. The demand for tires will be disproportionately large, as rubber does not last well in this climate.

At present prices it would seem that American coal might be imported at a fair profit, if it were shipped direct. The increase in the coasting trade and in the import and export trade which is confidently to be anticipated, the establishment of factories and sugar mills, the construction of new railways, the establishment of electric-light plants, refrigerating plants, etc., will create a constantly increasing demand for coal. While the coal fields of these islands are extensive, they are as yet undeveloped, and their development will take both time and capital.

PUBLIC HEALTH.

It is believed by this Commission that no tropical islands in the world enjoy a better climate than do the Philippines. While this is true, two classes of diseases have to be reckoned with here. These are, first, diseases common to temperate and tropical countries, and, second, diseases especially characteristic of the latter regions. Under the former head would fall smallpox, cholera, bubonic plague, and leprosy. Smallpox is endemic in these islands. The natives have very little fear of it, and are apt to neglect the necessary precautions to prevent its spread, unless compelled to adopt them. Experience has shown, however, that it can be stamped out by thorough vaccination. A particularly effective virus is obtained from the water buffalo in a laboratory established at Manila for this purpose by Dr. Frank S. Bourns. Similar laboratories will be established at convenient points

throughout the archipelago and a vigorous attempt made to vaccinate the whole population.

There have been more or less destructive epidemics of Asiatic cholera in the Philippines in the past, but they have occurred at long intervals. The last was in 1888-89. Cholera has not appeared in the islands since that time, but we are near China, which is a breeding ground for disease, and danger from epidemics imported from that country can be avoided only by the maintenance of a strict quarantine service.

Bubonic plague appeared in Manila in December, 1899, but has never made any considerable headway. The largest number of cases in any one week was 17, and the largest number of deaths 14. The disease was almost entirely confined to Chinese and natives. At the present time rare sporadic cases occur at long intervals. The success which has been met with in holding it in check bears eloquent testimony to the efficiency of our quarantine service and of the Manila board of health, and is in striking contrast with what has taken place in the neighboring port of Hongkong.

No systematic effort has ever been made to stamp out leprosy in these islands. There is a leper hospital at Manila and another at Cebú, but there has never been any comprehensive plan for segregating those afflicted with this disease. This state of affairs should be remedied. The military authorities have already undertaken the inspection of the smaller islands of the archipelago with a view to the selection of one suited to the needs of a leper colony and the ultimate isolation there of all lepers. This is a matter of considerable importance, and as soon as a suitable site shall have been decided upon the necessary legislation will be enacted.

We now come to a class of diseases which, while not confined to the tropics, are apt to occur in their severest and most dangerous form in hot countries, such as diarrhea, dysentery, malarial troubles, and beri-beri. While many of the islands of this group are extremely healthful, they vary widely in this particular, as do different localities on the same islands. Mindoro and Balabac, for instance, have a deservedly bad reputation, while Sibuyan, Guimaras, Siquijor, and Cebú are considered especially healthful.

That health conditions are, on the whole, surprisingly good in the Philippines is conclusively demonstrated by comparing the sick reports of our troops while in camp in the United States with the reports for the time during which they have been engaged in active service in the Philippines.

While it may be confidently anticipated that the establishment of a well-organized department of public health in these islands will lead to a general improvement in sanitary conditions, it will doubtless remain true that troops which are forced to campaign in the damp

lowlands, or to garrison towns which have sprung up in situations where towns should never have been built, will suffer more or less severely from diarrhea, dysentery, and malaria. Beri-beri is common among the natives of certain localities, but very seldom attacks our soldiers.

- In the treatment of these last-mentioned ailments it is well known that a suitable change of climate is often far more effective than are any drugs which can be administered.

Recuperation from severe wounds or wasting diseases takes place slowly in this tropical region. Thus far it has proved necessary to send a considerable number of sick soldiers either to Japan or to the United States for recuperation. This involves very heavy expense and frequently loss of life as well, for, even with the most perfect transports and hospital ships, it is impossible during a rough sea voyage to give sick men the care which they can have on land.

Experience has shown that an occasional change to a cooler climate is very desirable, even for those who live in the more healthful parts of the archipelago. Especially is this true of white children, who usually do very well here up to the age of 8 or 10 years, and then often seem to require a change.

In view of the facts above set forth, it becomes a matter of great practical importance to ascertain whether or not there exists within the limits of the archipelago any accessible region presenting suitable climatic and other conditions for the speedy recuperation of sufferers from wounds, tropical diseases, wasting illnesses of any sort, or from the injurious effects of long-continued residence in a hot climate.

Such a region should have cool, pure, bracing air and a plentiful supply of good water. It should be sufficiently extensive to allow of the erection of hospitals for the sick and of summer homes for a considerable population. It should, if possible, be suited to the pasturing of cattle and the growing of fruits, vegetables, and grains.

It is a well-established fact that no such region exists in the central or southern islands of this archipelago, with the possible exception of Mindanao.

Mindoro has very unhealthful lowlands, and although several mountain chains extend outward from Mount Halcon, which is one of the highest peaks in the archipelago, there is no elevated plateau or tableland. With the exception of Mount Halcon, the rocky summit of which rises above the tree line, the mountains are covered with dense vegetation to their very tops.

The islands of Romblon, Sibuyan, Panay, Guimaras, Negros, Masbate, Burias, Ticao, Siquijor, Bohol, Cebu, Samar, Leyte, Marinduque, Catanduanes, Basilan, and Palawan all have hills or mountains, which are in some instances low, in others of very considerable height. For the most part, they end like the mountains of Mindoro in sharp peaks

or narrow forest-covered ridges, and in no one of these islands is there an extensive, open, and sufficiently elevated table-land or plateau.

The great island of Mindanao is still, to a considerable extent, a *terra incognita*, but Jesuit priests have carried on quite extensive explorations in its interior. The result has been the discovery of long chains of high mountains, but, so far as the Commission is able to ascertain, no elevated table-land has as yet been found, nor does it seem probable that any exists. An expedition which climbed nearly to the top of Mount Apo, believed to be the loftiest peak in the Philippines, found it covered with the densest vegetation, and, apart from its inaccessibility, wholly unsuited for a health resort.

Luzon remains. While the mountains in the provinces south of Manila and in Laguna, Infanta, Bulacan, Bataan, Zambales, and Tarlac are of the character already described for the central and southern islands and are therefore unsuited to the purpose in question, it has long been known that in northern Luzon there are extensive highland regions with a strictly temperate climate, which have the great advantage of being within comparatively easy reach of Manila, the largest city of the islands and the center of all important lines of communication for the archipelago.

BENGUET AS A HEALTH RESORT.

The southernmost of these regions, and therefore the most accessible from Manila, is comprised in the province of Benguet. For a somewhat detailed description of the topographical characteristics of this province reference is made to exhibit "The Igorrotes of Benguet." Baguio, the present capital of the province, is about 132 miles from Manila in a straight line. By the Manila and Dagupan Railway to the town of Dagupan, and by the shortest practicable route for a railroad from this point to Baguio, the distance is about 177 miles.

The Spaniards were familiar with the remarkable climatic conditions found in Benguet, and before the departure of the Commission from the United States the essential facts, which were matter of common report in Manila, were brought to your attention. In obedience to your verbal instructions the Commission, soon after its arrival here, undertook to obtain full and accurate information as to the suitability of Benguet as a health resort.

As a preliminary step to this end a thorough search of the old Spanish archives was made, with a view to gathering together all available data. It was soon learned that a very full and extensive report had been published by a Spanish commission consisting of Don Henrique Hore, colonel of artillery; Don Rafael de Arilar y Castañeda, major of engineers, and Don Elias Con y Tres, first surgeon of the military department, sent by General Blanco to report on the climatic and health conditions of this province.

A careful search of the archives made it evident that all the original copies of this report, of which there were three, had been removed; but we eventually ascertained that it had been published in full in a Spanish medical journal and, through the courtesy of the Jesuit fathers and of Dr. Joaquin Gonzales, the Commission secured possession of nearly the full text. This report is a very extensive document, discussing at length the desirability of a military sanitarium to be erected at some place with suitable climatic conditions, and then going on to demonstrate that the township of Baguio, in the province of Benguet, is such a place.

It enters into an elaborate discussion of the geographical situation of this township, its topography and the means of communication with it, the character of its soil, seismic phenomena, products; fauna, and climatic conditions, including atmospheric pressure; temperature, prevailing winds, humidity, rainfall, frequency of clouds, electric phenomena, and number and length of storms. The sources of water supply are discussed and shown to be adequate. Thermal mineral springs are also described. There is some description of the native Igorrotes, with measurements, and an attempt at determining the death rate among them and the causes of death.

There follow general conclusions from the data obtained, with a discussion of the probable physiological effects of the conditions found. The translation of this report is forwarded herewith as Exhibit H.

While the original document is diffuse and somewhat bombastic in style, it nevertheless contains a great deal of valuable information. The data as to temperature and humidity, secured during the sixty days' sojourn of the Spanish commission at Baguio, were of so surprising a character as to suggest reasonable doubt concerning their accuracy.

In view of the importance of the question at issue it was decided that nothing short of personal investigation could satisfactorily settle the matter. Commissioners Wright and Worcester were appointed a committee to gather all available information on the subject, and were directed by the Commission to proceed to the province of Benguet and investigate the conditions existing there.

Their report, which is given in full as Exhibit D, demonstrates conclusively that in the vicinity of the town of Baguio there exists an extensive region admirably suited to serve as a health resort for these islands and for the neighboring China coast.

They found an extensive highland region, peopled by a friendly, harmless tribe;¹ with pure, cool, invigorating air and abundant water; free from tropical vegetation; affording pasturage in plenty, and suited to the production of many of the fruits, vegetables, and grains characteristic of the temperate zone.²

¹ See Exhibit F, "The Igorrotes of Benguet."

² See Exhibit G, "Agricultural notes on Benguet."

They took with them a trained meteorological observer, who will be kept at Baguio until the latter part of next May, when his records, together with those of the Spanish commission, previously referred to, will cover every month of the year.

Detailed meteorological data for the months of August, September, and October have already been received, and will be found set forth in tabular form in the report of this committee above referred to.

The remarkable character of the climate of Benguet will be better appreciated if a brief comparison is made between it and the climate of Manila.

Comparison between the temperature, relative humidity of the atmosphere, and rainfall at Baguio and Manila during the months of August, September, and October, 1900.

	August.			September.			October.		
	Manila.	Baguio.	Difference.	Manila.	Baguio.	Difference.	Manila.	Baguio.	Difference.
<i>Temperature.</i>	°	°	°	°	°	°	°	°	°
Maximum	96.3	76.8	18.5	91.1	76.6	14.5	91.8	75.9	15.9
Minimum	72.4	59.0	13.4	72.7	61.2	11.5	71.3	56.8	14.5
Mean	81.4	65.9	15.5	81.5	66.9	14.6	81.0	67.4	13.6
Mean daily maximum	87.0	69.3	17.7	87.0	71.5	15.5	88.0	72.4	15.6
Mean daily minimum	75.8	63.5	12.3	75.6	63.2	12.4	73.0	62.1	10.9
Greatest daily variation	17.2	12.6	4.6	15.6	13.7	1.9	20.1	16.2	3.9
Least daily variation	4.9	0.9	4.0	3.9	0.9	3.0	4.7	6.2	1.5
Mean daily variation	11.8	5.46	5.84	11.5	7.88	3.62	15.3	10.28	5.02
<i>Humidity.</i>									
Maximum	95.0	97.4	2.4	93.3	95.6	2.3	96.4	92.0	4.4
Minimum	81.0	88.6	2.6	78.3	81.8	3.5	72.6	70.2	2.4
Mean	86.9	91.6	4.7	86.3	89.4	3.1	83.2	83.1	0.1
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
Rainfall	28.5	37.04	8.54	11.32	12.16	0.84	6.9	4.96	1.94

These facts speak for themselves. It is hard to conceive of a region affording a more delightful temperature than Baguio, where it is always cool and yet never cold. The highest temperature recorded during August, September, and October is 76.8°. The observations of the Spanish commission began on the 24th day of May and lasted until the 22d day of July, the maximum temperature recorded during this period being 75.2°. These data, taken together with those secured by us, cover the hottest part of the year, and the absolute maximum temperature is probably very close to 77°. From the best available data it would seem that the absolute minimum was about 45°. The lowest temperatures occur during that period of the year when the skies are clear and the air is dry.

The mean temperature for the entire period covered by our observations was 66.86°, that at Manila was 81.3°, giving a difference of 14.44° in favor of Baguio.

The minimum temperature recorded by the Spanish commission for the sixty days of their observations was 52.7°, and the mean temperature was 65.66°.

A striking feature of the temperature at Baguio is its uniformity, the greatest daily variation recorded for the three months being 13.7°

and the least daily variation being nine-tenths of a degree. At Manila the greatest daily variation during the same period was 20.1° and the least was 3.9° . The mean daily variation for the three months at Manila was 12.6° and at Baguio was 7.87° , or 4.73° less than at Manila.

The bracing character of the atmosphere is attested by everyone who has visited the province of Benguet, and its purity is shown by the fact that fresh meat keeps without ice for from three to six days, according to the season. This last fact is of especial significance in connection with surgical operations and the treatment of wounds.

Our record shows that the relative humidity was slightly greater at Baguio during the months of August and September than at Manila, but during the month of October was 0.1 degree less. The rainfall was greater at Baguio during August and September, but was less during October.

In considering rainfall and humidity it should be remembered that an unusually large number of typhoons were felt in Northern Luzon during the period in question, and that one crossed the island just to the southward of Benguet. These storms are almost invariably accompanied by heavy and long-continued rain and by extreme moisture. The dry season has now begun at Baguio, and rainfall and humidity will probably be less there during the present month than at Manila.

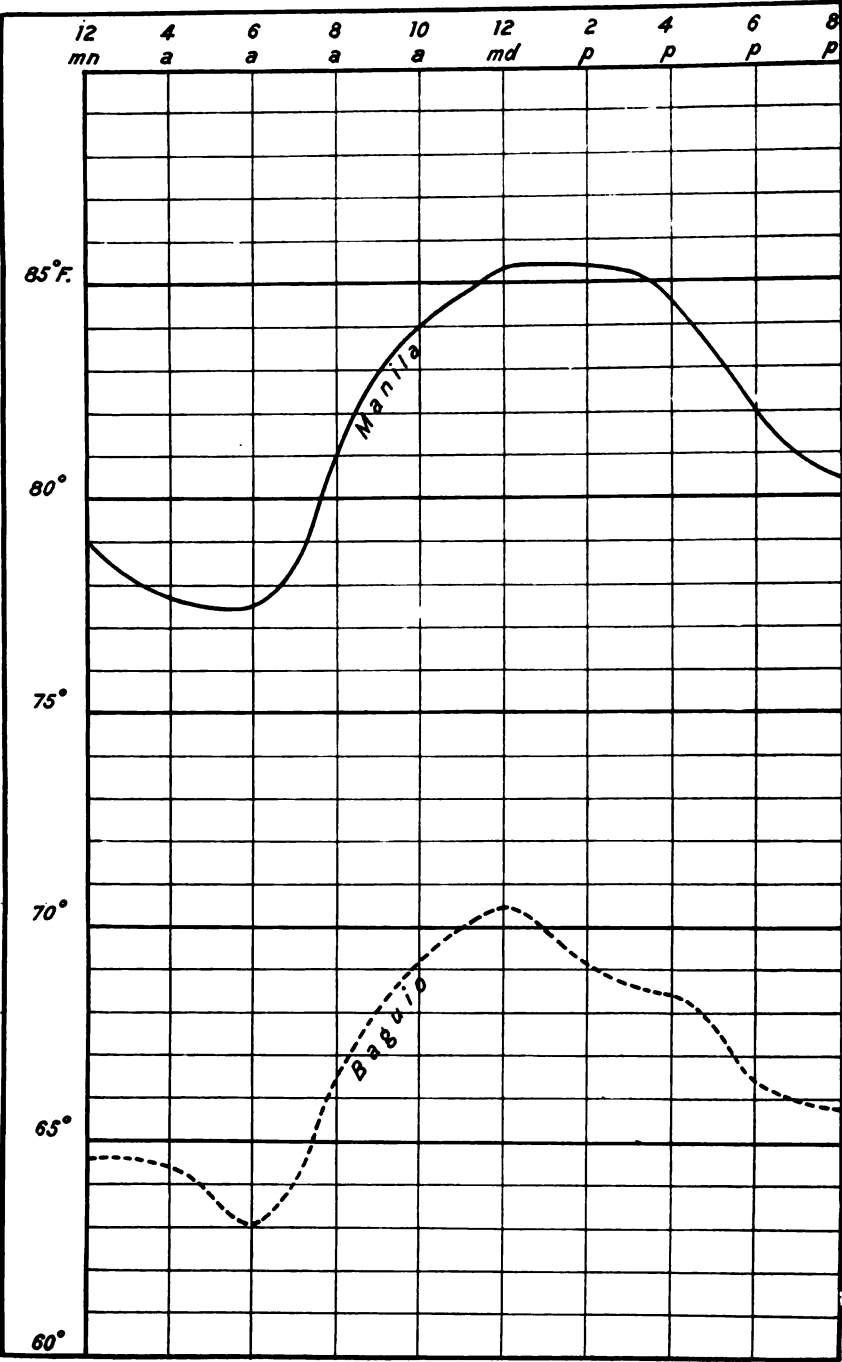
In this connection it may be worth while to insert a brief table, borrowed from the report of the Spanish commission, in which a comparison is made between the temperature, relative humidity, and rainfall for the year at Baguio and Manila:

Yearly.	Manila.	Baguio.
Maximum temperature..... $^{\circ}$ F.	96.8	75.2
Minimum temperature.....do.	60.8	46.4
Mean temperature.....do.	77.0	62.6
Mean barometric pressure.....inches.	29.7	25.2
Relative humidity—mean degree.....do.	64	60
Days of rain—mean number.....do.	160	180
Quantity of rainfall.....do.	78 to 118	59 to 78

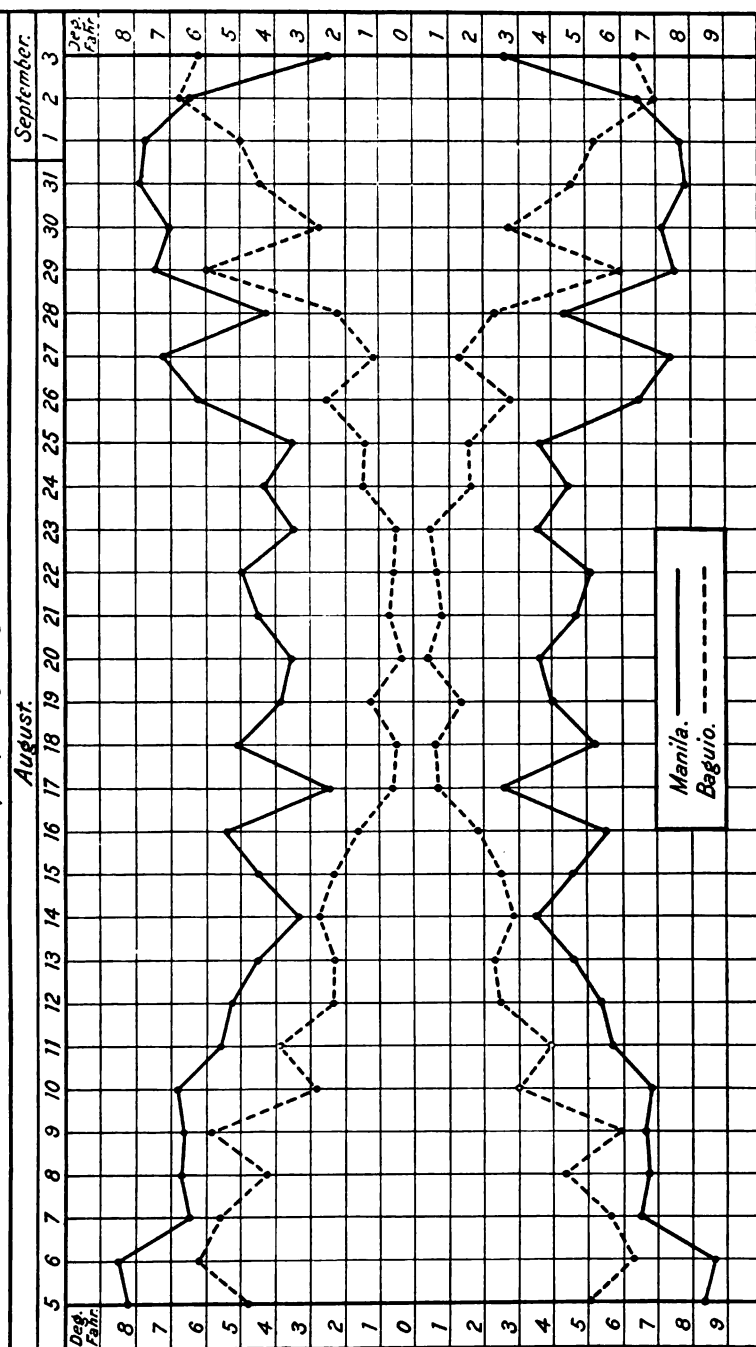
There is nothing in the report of this Commission to show that their observations extended over a longer period than the sixty days of which we have the detailed record, but the Commission has been informed by Col. Cristobal de Arilar, a brother of Col. Rafael de Arilar, who was a member of this Spanish commission, that the latter gentleman remained at Baguio for nine months, taking full observations throughout this entire period. It is inferred that his results form the basis of the comparison made in this table.

It would seem that not only is the temperature much lower and more uniform at Baguio than at Manila, but the rainfall and relative humidity are materially less as well. Baguio is especially well situated to escape fogs, which are infrequent, considering the altitude, as

MEAN DAILY TEMPERATURE AT MANILA AND BAGUIO, BASED ON THE OBSERVATIONS
MADE DURING AUGUST, SEPTEMBER, AND OCTOBER, 1900.



*Daily variations of Temperature at Baguio and Manila
for the thirty days beginning August 5th, 1900.*



The space between the dotted lines shows the variation at Baguio. The space between the heavy lines shows the variation at Manila.

will appear from the meteorological tables in Exhibits D and H. The Spanish commission found that during the period over which their observations extended rain lasting throughout the day was very exceptional; and our own observations, which cover the very worst part of the year, fully confirm this view. In the large majority of cases, even when the rains are heaviest, the mornings are bright and clear. There would therefore seem to be every theoretical reason to believe the climate of this part of Benguet to be most healthful and invigorating. This view of the case is fully justified by the practical results actually obtained under the Spanish régime from sending persons suffering with chronic diarrhea, dysentery, or severe malarial troubles to Trinidad or Baguio for recuperation. The Commission has been repeatedly assured by those who knew whereof they spoke that the results in such cases were uniformly most satisfactory.

It may be worth while to note that an average sick list of but three was reported for the two companies of colored troops garrisoning Trinidad at the time of the visit of Commissioners Wright and Worcester, while the American miners whom they met were all in splendid physical condition and agreed that a more delightful and healthful climate could not be desired.

In this connection, reference is made to the professional opinion of Frank S. Bourns, M. D., late major and chief surgeon, U. S. V., late chief health officer of Manila, and late professor of pathology and histology at the Southern Medical College, Atlanta, Ga., as to the suitability of Benguet for a health resort; also to the report on this subject by Maj. Louis M. Maus, chief medical inspector for the Eighth Army Corps. Major Maus's report is not on file at Manila, but has been forwarded to the Surgeon-General at Washington. It is the more interesting from the fact that he was by no means enthusiastic concerning the possibilities of Benguet before making a personal investigation into the facts.

The distinguished physician, Don Elias Con y Tres, first surgeon of the military health department for the islands under the Spanish régime, after a thorough discussion of the physiological effects of the climate of Benguet (see Exhibit H, p. 162), concludes that individuals debilitated by illness or the effects of the hot climate of the lowlands, or with scrofulitic tendencies, or those suffering from anæmia, malaria, inflammation of the kidneys, diseases of the digestive canal, asthma, neurasthenia, neuralgia arising from malarial troubles, chronic catarrhs of the bladder and urinary channels, nostalgia, and hypochondria would be greatly benefited and in many instances cured.

While the high relative humidity during the worst part of the rainy season would be a drawback in the treatment of rheumatism, he concludes that a stay at Baguio during the dry season would be very useful to those afflicted with this disease, especially since they would have

the advantage of natural hot baths. He expresses the belief that the altitude, the tonic property of the air, and the moderate and uniform temperature would be beneficial to consumptives.

He concludes by stating that many other pathological states and morbid process of the sort peculiar to women and children would find a cure, or at least noteworthy relief, from a more or less lengthy stay under the influence of this climate.

From what has already been said it would seem that there could be but one opinion as to the desirability of making this wonderful region accessible by a railroad, provided it can be accomplished by a reasonable expenditure. In order to acquire accurate information on this subject it was determined that a careful survey should be made. The Commission was fortunately able to secure the services of Capt. Charles W. Meade, Thirty-sixth U. S. Volunteers, for the purpose. He has the reputation of being a competent engineer, and has had a considerable practical experience in the location and construction of railways in the mountainous regions of California and other Western States, and at the time of his detail for this duty by the military governor was city engineer of Manila. He began the survey with a competent corps of assistants about two months since, commencing at Baguio and working down the mountains, following the valley of the Bued River, with Dagupan as his objective point. He has recently made an informal report to the Commission from which it appears that he has finished all that portion of the survey in the mountains, and the only part thereof presenting any engineering difficulties.

The line in from the foothills to Dagupan runs through a rolling country and a plain. It crosses no large streams and involves no extraordinary expenditure. Captain Meade reports that the line from Dagupan to Baguio will be about 55 miles in length, with a maximum grade of 3 per cent, and that the portion of the road traversing the mountains will require a considerable amount of heavy and expensive work. He estimates that the total cost of the 55 miles and equipment, including rolling stock, will be about \$2,500,000 gold. He further reports that it will take from eighteen months to two years to complete it. His formal report will be forwarded to you as soon as it is made.

As a matter of investment solely, its construction would hardly be warranted, for it is not probable that in the near future it would more than earn operating expenses, if so much. The Commission, however, urges that it be built, purely on the ground of the value of the Benguet region as a sanatorium and as an advisable site for the military and political capital of these islands. If utilized for this purpose, there would result benefits which would annually more than reimburse the Government for its original outlay, besides saving valuable lives. The possibility of the road's ultimately being self-sustaining and paying interest on its cost is also not to be overlooked, although of sec-

ondary consideration. There are unquestionably in the neighborhood of Baguio, and scattered through the Benguet mountains, large and rich deposits of copper, coal, and gold, if the reports which come to the mining bureau and to the Commission are even in part true. These would be made accessible and valuable by this road, and in turn would give it a large business. It could probably be operated without loss, even at the present time, in connection with the Manila and Dagupan Railway to the northern end of the island. This line has been much discussed, is not expensive to build, and would run through a fertile and densely populated part of Luzon, and, it is believed, would pay from the beginning.

These are mere future possibilities, however, proper to be pointed out, but not intended in any way to affect the recommendation of the Commission that the government should build a line from Dagupan to Baguio as soon as possible. There are now, and will be for some years to come, many pressing demands on the income of the insular government from other quarters, the more important of which are referred to in this report, so that it is not believed it can afford, without embarrassment, at this time to appropriate the sum necessary to build it. Aid in some form from the General Government will therefore be necessary and, in the opinion of the Commission, should be extended.

HIGHWAYS, RAILROADS.

As an instrumentality for the development of the great and varied resources of these islands, the building of highways and of steam and electric railroads is of the first importance. Their value from a military standpoint can hardly be overestimated, and indirectly they would only be second to primary schools as an educator of the people.

It may be asserted as a truism that a people without roads are necessarily savage, because society is impossible; and just to the extent that roads are lacking or defective, real progress is retarded and prosperity hindered. The absolute necessity for some reasonably efficient means of intercommunication between the various communities of these islands is therefore self-evident and requires no discussion.

As may have been expected, centers of population and comparative wealth are to be found at the seaports and territories contiguous thereto which are more or less accessible to markets by means of water communication, but these favored localities are limited in area and their facilities for doing business are, with few exceptions, inadequate and unsatisfactory. Although there are numerous harbors dotting the coast line, there are but few that admit vessels of heavy draft, and as a rule they are not landlocked and are more or less exposed to the prevailing typhoons, so that there are frequently days and even weeks during which ships can neither load nor unload.

There are numerous water courses in the great islands of Luzon and Mindanao which have their sources in the mountains of the interior and flow to the sea in rapid and broken currents. As a general rule they are inconsiderable in volume and are either not navigable at all, or, if navigable, only for a few miles from their mouths, so that they may be eliminated in considering the question of transportation.

The so-called highways are generally merely rude trails, which in the rainy season, lasting half the year, are simply impassable, and during the dry season are rough and only available for travel to a very limited extent. Whatever may have been the motive, the policy of the Spanish administration during all the years of its occupancy seems to have been one of isolation. Their trade laws were so framed as to prevent intercourse with the rest of the world and insure them a monopoly. They lacked the forethought or energy to construct extensive lines of communication with the interior and Manila and the other important towns on the seacoast. As a result there are few natives of the interior who have ever been beyond the boundaries of towns in which they live. Besides, the numerous tribes of Luzon speak different dialects, and it was only here and there in each community that one could be found who spoke Spanish. Such communication as they had with the central government was through the medium of the parish priest, who was generally a Spaniard familiar with the native dialects and who taught them in their native languages the very little they knew. It is not remarkable that the masses of the people are densely ignorant and credulous to a degree that can hardly be understood by Americans, nor that they are easily imposed upon and carried away by the most absurd falsehoods as to our sinister purpose in reference to them.

Such is the natural richness of the soil that the limited areas accessible to markets exported quite considerably on vessels plying from the small ports to Manila and Iloilo, but the scale of their operations has been and is relatively insignificant as compared with what it ought to be and would be were all parts of the island accessible.

The most serious hindrance to rapid and effective movements by our troops has been the inaccessibility of the country in which the insurgents have hidden themselves. The difficulty has not been to overcome, but to get at them. The cost of military operations under such conditions is enormously increased, as is the number of troops required.

As already stated, the Commission, acting under your instructions, has appropriated \$1,000,000 gold for road building. Whilst the primary purpose of the appropriation is to enable the military governor to build such highways as are most needed for strategic purposes, when constructed they will serve as well for the general uses of the people. It is the desire of the Commission, as rapidly as may be, to

push the construction of substantial and permanent highways throughout Luzon and the other large islands of the archipelago on some general and comprehensive plan, a large part of the cost of which will be borne by the communities more immediately benefited.

What has been said as to ordinary highways applies with additional force to railroads. The Manila and Dagupan Railroad, already referred to, is at this time the only line in the entire island. It was constructed by English capitalists and has been in operation since the year 1892. It has a gauge of 3 feet and 6 inches and traverses a rather low-lying fertile region densely populated. It was perhaps improperly located in the beginning, and crossing as it does quite a number of streams near their mouths, which necessitated much trestle and bridge work, was expensive to construct. This expense it seems was increased by unnecessary requirements of the Spanish Government. As a result it appears to have cost the company about \$60,000 gold per mile. It is an expensive line to maintain, by reason of the fact that several of the streams, in seasons of flood, overflow their banks and inflict much damage upon the roadbed. Because of these drawbacks the road has not proved a profitable investment, but would have paid well on a reasonable and proper outlay. But whilst it has not earned a fair interest on the extravagant sum which it cost, it has been wonderfully beneficial in increasing the population and wealth of the provinces through which it runs, and affords a striking illustration of the enormous benefits which would accrue were railroads built in other sections of these islands which are now wholly or partially inaccessible.

There are extensive areas of territory in the interior of Luzon and Mindanao having a very considerable population and capable of producing tobacco, copra, sugar, rice, and other tropical products on a large scale, which are wholly without means of communication of any kind with the outside world. As a result, having no incentive to produce more than enough for their personal needs, do not do so.

There are still other portions of the interior of these islands, which are now inhabited sparsely, and in the main by savage tribes, which are naturally rich in soil and minerals. A large portion of this territory is mountainous, and was only to a very limited extent ever under the control of the Spanish authorities. The mountainous region in Luzon alone covers several thousand square miles. It spreads out into a wide and broken region interspersed with valleys, well watered, with good grazing for cattle, which are frequently seen in small herds, looking sleek and fat. It is believed that nearly all the fruits and vegetables of the temperate zone can be grown there. The climate is in all respects the same as that of the province of Benguet, already referred to, and would furnish a habitat for Americans and Europeans, invigorating and healthful. There is unquestionably to be found throughout this region,

in more or less abundance, a variety of minerals, notably copper, gold, coal, and iron. These mountains seem to have been largely terra incognita to the Spaniards, yet, from the very limited investigations made by them, and from reports made by our own people, who, with characteristic energy, have been prospecting therein for the past two years, we are persuaded that certainly there are large deposits of copper, coal, and iron, and probably gold, which will richly repay development.

The great island of Mindanao seems never to have been explored by the Spaniards, who contented themselves with a comparatively few settlements along the coast. The Jesuit missionaries penetrated the interior, and from their reports are obtained the principal information extant. Since American occupation it has been impossible to make anything like extended exploration because of the disturbed conditions prevailing, but enough has been done in this direction by American prospectors to satisfy us that this island is very rich in soil, hard-wood timber, and minerals, and is perhaps the richest in the archipelago.

Without further elaboration it will be seen from what has already been said that there is immediate and pressing need of railroads in both Luzon and Mindanao. It is believed that they offer a most attractive field for investment of capital as well as for men of small means. The Spaniards seem to have always limited their plans for railroad building to the island of Luzon. Several lines were projected by them with Manila as the point of beginning, one being the extension of the Manila and Dagupan Railroad along the western coast to the northern end of the island, a distance of about 200 miles; another branches off from the Manila and Dagupan Railroad at or near Calumpit, and, extending up the valley of the Rio Grande de Pampanga, crosses the divide between the head waters of that river and the head waters of the Rio Grande de Cagyan, and follows the latter stream to its mouth at Aparri, at the northeastern end of the island. This line would be something over 300 miles in length. It traverses a section of Luzon rich agriculturally and generally well populated.

The great Cagyan Valley is said to be the largest and richest in Luzon, from which comes the greater part of the tobacco raised in the island. This would not be a very expensive road to build, and it is believed it would pay handsomely from the beginning. Mr. Horace Higgind, the general manager of the Manila and Dagupan Railroad, informs us that his company would be glad to build this road at once, and is prepared to do so upon the grant of a charter for that purpose.

There is another line of road, much talked of and projected under the Spanish régime, beginning at Manila and running at first in a southwesterly direction near the coast line and then southeastward through the provinces of Cavite, Laguna, Tayabas, Camarines, and Albay to Sorsogon, at the southern end of the island. This line would

be about 200 miles in length. It would run through a rich and densely populated country, would not be difficult or expensive to build, and it is believed would be immediately profitable.

A line has also been projected from Manila eastward and southwesterly, running along the shores of Laguna de Bay across the island to a port on Lamon Bay. This port is said to be the best in the islands, landlocked, affording shelter in any weather, and with a depth sufficient to enable vessels of heavy draft to approach close to shore. With this line built, the distance from Manila to the United States would be shortened by about 700 miles. The line would pass through a number of large towns and a rich and fertile country, and it is believed would be immediately profitable.

As has already been indicated there have been no surveys for railroads in the island of Mindanao. It is a virgin field well worthy of thorough and immediate investigation. We append hereto as "Exhibit —" maps showing all these lines as surveyed or projected.

The islands of Panay, Negros, and Cebú would also be much benefited by short lines of railroads. They are densely populated, produce copra, sugar, etc., and offer an attractive field for investors.

It is believed that were the Commission in a position to grant charters and concessions that all these lines in Luzon could and would be built by foreign capital. Commercially speaking, these islands have for generations been largely in the hands of English and German merchants, with Spanish connections, and they know and appreciate their desirability for investment. For obvious reasons, however, had the Commission the power to make such grants, it would hesitate to do so until full opportunity for investigation had first been offered Americans.

The Commission early reached the conclusion that it had no authority to grant franchises for the construction of railroads, or for any other purpose, and hence have done nothing in this direction. Numerous applications have been made for concessions to build steam and electric railroads, and also electric-light, gas, telephone, and other similar plants, both in Manila and other portions of the archipelago, but for the reason stated the Commission has uniformly declined to consider them.

The Commission is of the opinion that, so soon as it has the power to act on applications of this character, a sound policy dictates the granting of franchises for works of internal improvements, and the results of such a policy will be most fortunate.

HARBOR IMPROVEMENT.

As already stated, there are but few deep-water harbors in these islands. Those of the large cities need to be deepened and improved. We have confined our attention for the present, however, to the harbor

of Manila, for the reason that this city is the chief port and metropolis of the islands, and to make necessary improvements will require all the funds which are at present available for work of this character.

Large vessels, having a draft of more than 16 feet, are now compelled to lie 2 miles or more offshore. Those of less draft than this find entrance into the Pasig River. The bay is so large that it feels the full effects of the winds. The only method by which large vessels anchoring therein can take on or discharge cargo is by lightering. At best, and when the bay is calm, this is a tedious and very expensive process, and during rough weather becomes impossible. Moreover, during the prevalence of typhoons, which are not infrequent, the safety of vessels thus situated is much endangered.

As may be readily understood from the foregoing, the cost of doing business in this port is very great and constitutes a very heavy burden upon commerce. Freight rates from Manila to Hongkong, a distance of about 700 miles only, are as much and sometimes more than from San Francisco to Hongkong, a distance of about 8,000 miles. In spite of these drawbacks, and whilst the policy of the United States with reference to these islands was uncertain, the volume of trade was steadily growing; and now that the late Presidential election seems to have put at rest all doubts on this score, we believe it will continue to do so in an increased ratio with pacification, the influx of capital, and the application of American ideas and methods. The paramount need, therefore, for a thoroughly protected harbor, with sufficient depth of water to accommodate the largest ships, wherein they can lie not only in safety, but can load and discharge cargo in all weathers, is apparent.

The Spanish Government, more than twenty years ago, formulated an elaborate scheme for the construction of such a harbor, and levied a special tax on imports and exports for the purpose of raising the necessary funds to carry it into effect. Operations were begun pursuant thereto shortly thereafter and continued in a slow and intermittent way up to the time of the native outbreak of 1896, with the result that about 30 per cent of the work contemplated was completed.

The plans and specifications of the Spanish engineers having the matter in charge came into possession of the Americans upon occupation in 1898, and have been carefully examined by Capt. John Biddle, chief of engineers, Division of the Philippines, and his assistants. They are pronounced by them to be well adapted, with some minor modifications, to the purpose intended. We have had repeated conferences and discussions with Captain Biddle, and, so far as we are capable of forming an intelligent judgment, concur in his opinion. It will probably cost \$2,500,000 gold to carry out the project in its entirety. We have enacted a law providing that the Spanish plan as modified by the chief engineer shall be carried out, making a present

appropriation of \$1,000,000 gold for that purpose and directing that the work shall be let, after advertising here and in the United States, to the lowest responsible bidder. The act further provides that the first work to be done shall be the extending and finishing of the two long jetties or breakwaters already partially constructed, and which will when finished inclose the new harbor, and that the space between them shall be dredged so as to give perfect protection to the largest vessels. Further appropriations will be made when needed.

(For further details see act No. 22 accompanying this report.)

NATIVE TROOPS AND POLICE.

The question as to whether native troops and a native constabulary is at present practicable has received much thought and a careful investigation by the Commission. We have felt that its consideration and determination was especially important at this time in view of the fact that the volunteer regiments now in service here will soon be returned to the United States to be mustered out. We have sought and obtained the opinions of a large number of regular and volunteer officers of all rank, having their fields of operation in all parts of the islands, and there appears to be a general consensus of opinion among them that the time is ripe for these organizations, and this is also our conclusion.

Assuming that Congress at its next session will provide for an increase of the Regular Army, it by no means follows that a large part thereof will or should be stationed here permanently. Considerations of public policy and economy alike forbid such a programme; nor in our judgment is it necessary.

Whilst the American soldier is unsurpassed in war, as it is understood among civilized people, he does not make the best policeman, especially among a people whose language and customs are new and strange to him, and in our opinion should not be put to that use when, as we believe, a better substitute is at hand. We therefore earnestly urge the organization of ten regiments of native troops of infantry and cavalry, the proportion between the two arms of the service to be fixed by competent military judges.

These troops should in the main be officered by Americans. Certainly this should be the case as to their field officers and company commanders. Lieutenants might be Filipinos, judiciously selected, and provision might be made for their promotion in the event of faithful or distinguished service.

The opportunity is offered for the selection of such officers largely from the officers and men constituting the volunteer regiments now here, who are at present available and by reason of past experience and service are peculiarly fitted for such duty. It is suggested that a provision should be made permitting officers of the Regular Army to

be appointed to command in these native regiments without losing their position in the regular establishment.

We have made investigations as to the probable cost of one of these native regiments, the officers of which are to be paid as in the regular service of the United States, and have reached the conclusion that it will not exceed \$350,000 gold per annum, and perhaps will be something less. This estimate is based upon the assumption that the privates will be paid \$10 Mexican per month, noncommissioned officers somewhat more, and that a special and cheaper ration suited to native tastes and habits will be issued in lieu of the regular army ration. Col. Charles A. Woodruff, chief commissary, Division of the Philippines, a distinguished authority upon this subject, informs us that such a ration can be supplied at a cost of a fraction less than 13 cents gold per day, and that it would be ample and satisfactory. The cost of their clothing is estimated as being the same as that of the United States regular.

We feel assured that upon this basis there will be no difficulty in enlisting first-class men who would be only too glad to serve upon these terms. Indeed, a number of intelligent officers, entirely conversant with the subject, who have favored us with their views, express the opinion that a considerably lower rate of pay would accomplish equally good results. In explanation of this it may be stated that the earning capacity of the average native, even of the better class, is exceedingly small, and the scale of wages for labor almost incredibly low. His expenditures are correspondingly small and his style of living meager and simple. It is, however, all that he has been accustomed to, and never having known anything better he is contented and happy with what he has. Besides, he is inordinately fond of the show and glitter of military life and wears his uniform with a conscious sense of pride and increased importance, difficult of appreciation by those who are unfamiliar with his characteristics and modes of thought. Not only does he entertain these sentiments himself, but it is cheerfully conceded by his associates and by the people at large; it adds to his social position and that of his family as well. The pay, clothing, and ration, therefore, which would seem insufficient to an American, are regarded with a very different eye by the native.

Whether these regiments should be enrolled as part of the Regular Army of the United States or should constitute a separate insular establishment, but under the control of the United States military authorities, is an interesting question, which is worthy of the careful consideration which no doubt it will receive. Arguments pro and con readily suggest themselves; but as the question is one not in any way affected by anything peculiar to this people or by exceptional local conditions, we make no recommendation. In this connection it should be stated that in any event it will be necessary for Congress to make provision for the maintenance of these troops for the next two years.

After that time it is believed that with the restoration of order and an improved revenue system, honestly and efficiently administered, the income of the insular government will have so increased that it can without difficulty permanently assume and carry this burden.

We further recommend that a comprehensive scheme of police organization be put in force as rapidly as possible; that it be separate and distinct from the army, having for its head an officer of rank and pay commensurate with the importance of the position, with a sufficient number of assistants and subordinates to exercise thorough direction and control. This organization should embrace every township in the islands, and should be so constituted that the police of several contiguous townships could be quickly mobilized. The chief officers of this organization should be Americans; but some of the subordinate officers should be natives, with proper provision for their advancement as a reward for loyal and efficient services.

The main duty of the police would, of course, be to preserve peace and maintain order in their respective townships, but occasion would no doubt frequently arise when it would be necessary to utilize the forces of several townships against large bands of *ladrones*. The police of each township should be subject to the call of the local authorities, but prompt reports of their operations to the central head, and especially of any unusual occurrence, should be required. There should also be some responsible subordinate in charge of the police of each township, not only to secure discipline and efficiency in the force itself, but also as a check against their improper use by the *presidentes* and other officials of the municipalities. This is the more important because it is difficult to make the average Filipino official understand that power is not placed in his hands for his own personal benefit. Under the Spanish régime *presidentes* and other officials of the municipalities were required to serve without pay from the Government and were expected to recoup themselves from the people. There is as yet no public sentiment hostile to such courses which would operate as a deterrent, and it is feared they might readily fall again into their old habits if unchecked.

There have been four years of disorder, more or less accentuated, in these islands, and the return to peaceful habits of all those who at one time or another have been in arms, especially when the character of the people is considered, can not in the nature of things be immediate. It is believed that a well-directed native police on the lines indicated in the foregoing will be of incalculable service in hastening the return of peace and order.

Through them would be protected the masses of the people, who are anxious for peace and quiet, and who would willingly acknowledge the sovereignty of the United States, but who, as matters stand, are not only terrorized and despoiled, but are often forced into an appear-

ance of hostility to our rule which they do not feel. Furthermore, it would give them courage to assist in their own defense. It would inspire in them the feeling they could best do so by actively aiding the civil and military authorities. As these local constables would have a personal acquaintance of practically all of the people in their respective communities, together with means of information as to their movements and manners of life, it would soon become impossible for insurrectos and bandits to live in the towns as peaceable citizens so long as it suited their interest or pleasure, then to assume the rôle of hostiles, and when pursued by our soldiers again return to their homes without molestation.

A native police of this sort, when supported by American and native troops, would be especially serviceable in putting an end to the only real opposition to our authority which to-day exists, with which our soldiers find it difficult to cope. Were the insurrectos in fact soldiers, waging civilized warfare, as this term is ordinarily understood, it would have been ended long ago; but this is not the situation we have to confront. The real difficulty lies in desultory attacks, as a rule feeble and insignificant, made by men who are one day inoffensive noncombatants and the next guerrillas. A double rôle of this sort is possible with our soldiers, who find it difficult to distinguish one Filipino from another, and who have no means of acquiring an intimate knowledge of their movements. But as already said, the native police would experience no such difficulty.

The Commission doubtless has power by virtue of its instructions to establish a police system such as is here suggested, but it recognizes that at this time such a force would be operating mainly in the same territory as the army, and that without thorough cooperation confusion might ensue. Besides, the subject is a large one, involving considerations semimilitary in their nature, and therefore the Commission has deemed it inexpedient to act without direct authority from you.

The only objection we have heard urged to the employment of natives as soldiers and constables is that their loyalty may be questioned, and that it might prove a source of danger to put arms in their hands at present. We have of course considered this view, but have arrived at the conclusion that this objection is not insuperable. It is expected that there would from time to time be isolated cases of defection, but we believe that judicious selection and discipline would create a native force both reliable and effective. The history of the Filipino soldier when serving under the Spanish flag supports this view. For many years prior to the outbreak of 1896 the Spaniards had less than 5,000 Peninsular troops in these islands. All the rest were natives. The latter, as a rule, remained loyal to Spain until it was manifest that her sovereignty was ended. This was the case

although the masses from which these native soldiers were drawn were cruelly oppressed by the Spaniards, and they themselves were poorly fed and paid inadequately and rarely. Besides, the Spanish officers, as a rule, would compare very unfavorably with the American in personnel and equipment, and presumably were unable to impress themselves upon the native so as to secure his respect and affection, as would our officers.

The experience of England in dealing with conditions practically the same as those which we are called on to meet, as she has frequently done, and her success, furnishes a precedent for our guidance which should not be overlooked. Though she has had here and there unfortunate experiences, as a general rule she has been served faithfully by her native soldiers, even against their own brethern.

The fact is every soldier has a natural feeling of loyalty for the flag under which he serves. Respect for his officers and obedience to their orders become to him a habit of life. When decently treated, he becomes sincerely attached to them and cheerfully obeys their orders. It is our deliberate judgment that not only is the organization of native regiments here not premature, but might safely have been begun at least a year ago.

LEGAL PROCEDURE.

Careful investigation has been made as to the causes of the universal complaints that are made in regard to the administration of justice in the Philippine Islands. One of the principal causes is the great delay necessarily incident to the progress of litigation under the code of civil procedure now in force. Before a suit can be instituted in a court of first instance, which is the ordinary trial court for all matters of importance, the plaintiff must execute a power of attorney authorizing a solicitor to act for him. The power of attorney must be acknowledged before a notary public, and must then be declared sufficient by an attorney who will act in the cause. The intervention of these three paid officials—attorney, solicitor, and notary public—is necessary for the institution of an action. Any defect in the certificate of the notary public, or in the power of attorney itself, or in the declaration of sufficiency, is ground for a dismissal of the action, and an appeal from the ruling of the court in either of these matters is allowed, whereby the cause will pass to the supreme court at its initial stage. All the proceedings must be upon stamped paper. Any irregularity in that respect may lead to a ruling by the court and another appeal. Then the competency of the judge may be challenged, and an appeal may be taken from the ruling upon that subject. Then the jurisdiction of the court may be assailed, by inhibitory or declinatory pleas, and an appeal may be taken from the ruling upon that subject. All these surroundings and appeals are preliminary to any investigation of the merits of the controversy.

At every step of the subsequent proceedings interlocutory appeals are possible and usual. An action is often dismissed upon the merest technical grounds, and in such case the attorney's and solicitor's fees of the successful party are taxed against the defeated one, and the practice is, and long has been, to make the fees very much larger in such case than would have been charged against the client. Such instances of gross extortion, under the form of legal procedure, are frequent and have been called to the attention of the Commission. The practical working of the existing code is to secure injustice instead of justice. Business men refuse to go into the courts with their controversies, because it is better to submit to the loss of their claims than to be robbed under the forms of law. The procedure seems skillfully adapted to the promotion of delay, expense, and denial of justice. Its reform is considered impracticable, and an entirely new code of procedure, civil and criminal, simple, easily understood, adapted to secure speedy trial, free from technical and antiquated distinctions of forms of actions, substantially analogous to the newer codes of procedure in the United States, is thought to be indispensable. A code designed to secure those ends is in course of preparation, and will probably be completed January next. The Filipino lawyers and judges have been largely consulted in its preparation, and they have taken great interest in it, and have made valuable suggestions. They, as well as the American lawyers in the islands, are substantially all agreed that an essentially new code is indispensable in the interests of justice. It is not believed that such a code will meet with opposition in any influential quarter; on the contrary, it is apparent that the need for such a reform is universally recognized, and its advent will be welcomed by all classes.

The foregoing remarks apply only to the procedure.

CIVIL CODE.

The Civil Code, in distinction from the Code of Procedure, is based upon the civil law, and in most particulars is adequate for the solution of commercial controversies and the regulation of all civil conduct. So far as it refers to particular Spanish institutions and relations to the Government of Spain, it will need reformation, so as to bring it into harmony with the laws and Constitution of the United States. Such a reformation will be made by the Commission in due time. But as a system of jurisprudence, it, in its essentials, undoubtedly meets the needs of the people of the Philippine Islands and furnishes a just measure of their rights and duties. It is thought that only such changes should be made in the body of the law itself as are rendered necessary by reason of the changed conditions in passing from the sovereignty of Spain to that of the United States.

REORGANIZATION OF COURTS.

Under military orders issued by Major-General Otis, the civil courts, as composed and constituted by the laws of Spain, which were held and administered prior to August 13, 1898, were permitted to resume the exercise of civil jurisdiction conferred by Spanish laws, within the islands, subject to such supervision of the military government of the United States as might be deemed requisite. In accordance with those orders, a supreme court for the islands was organized, and courts of first instance have likewise been established by virtue of military orders or acts passed by the Commission for the provinces of Manila, Pangasinan, Cagayan, Isabella, Cavite, Iloilo, Pampanga, Nueva Ecija, Ilocos Norte, Bataan, Cebú, Bohol, La Union, and Benguet.

Courts of justice of the peace have likewise been largely organized in the same provinces. The judges of all these courts, except the supreme court, have been, and are, Filipinos. In the supreme court, the minority have been, and are, Americans. These courts are all performing their regular functions at the present time, but the arrangement under which they have been constituted has been understood to be provisional and temporary. The salaries paid to judicial officers under the Spanish régime was very small, the highest being that paid to the chief justice of the supreme court, which was, for salary and allowance, \$6,500 Mexican, equivalent now to \$3,250 American money. The judges of the courts of first instance received no allowance, and their salaries ranged from \$1,875 Mexican (\$937.50 American money) to \$2,750 Mexican (\$1,375 American money), each. With these meager salaries, it is not strange that charges of corruption and acceptance of bribes should have been freely made against the judges. The evidence is very strong that the charges were well founded. The judges appointed under the American administration received 20 per cent larger salaries, but the salaries are entirely inadequate to secure competent men. Charges of corruption and incompetence against the present Filipino judges are common.

The appointment of Spaniards to judicial positions appears impracticable. One such appointment made by the military authorities proved unfortunate. The animosities between the Spaniards and Filipinos are such that it was found to be practically impossible for a Spaniard to preside as a judge, without exciting a very high degree of ill-feeling. Such appointments are not considered advisable, at least for the present. The number of Filipinos who are fitted by nature, education, and moral stability to fill such positions is very small. Very few can be found among them in whose integrity and ability business men have confidence. The feeling is widespread that for a time, and until the traditions of bribery and incompetence have in part been forgotten, these positions must be filled mainly by Americans.

It is likewise almost indispensable to have Americans, for a time, for the proper administration of a new code of procedure. It is thought that the courts of justices of the peace may all, or nearly all, be presided over by Filipinos, the rights of the parties being secured by an easy and inexpensive appeal to the courts of first instance. In the courts of first instance, where the new procedure will receive its most important application, American judges in most cases seem indispensable. In the court of last resort it will, doubtless, be important to have some judges who are familiar with local institutions and customs, and for that court, doubtless, Filipinos of high character and excellent attainments can be selected to fill some of the positions. It is hoped that by a consolidation of provinces into judicial districts, with authority on the part of the judge assigned to any district to hold sessions of his court at stated periods in each province of the district, the number of judges may be materially reduced, so that adequate salaries can be paid without too much enlargement of the salary account.

The Spanish language is the only one common to all educated Filipinos, the great mass of the people speaking only the native dialect peculiar to their respective localities. A knowledge of the Spanish language is exceedingly important for the successful performance of judicial duties in these islands, and the Commission are making strenuous efforts to secure men for such positions who, in addition to the other requisite attainments, have likewise a sufficient knowledge of the Spanish language. It is hoped that the judiciary may be reorganized early in the year 1901, substantially upon the same lines herein indicated. It is not thought that Congressional action, aside from the Spooner bill, or other analogous legislation, is necessary to enable the Commission to carry out its purposes in regard to codes of procedure or reorganization of the courts in general.

The establishment of one or more Federal courts for the islands is not within the competence of the Commission. For that reason no discussion is made at this time in relation to that subject.

The Commission have been favored with "A historical résumé of the administration of justice in the Philippine Islands," prepared by Hon. Cayetano S. Arellano, present chief justice of the supreme court. The document is exceedingly instructive and valuable, and is here annexed, marked Exhibit J.

LAND TITLES AND REGISTRATION.

A very large percentage of the lands are occupied and claimed by individuals without any record title whatever. Many never had a record title, and those who had them have largely lost them, through the vicissitudes of war, the burning of records, and the ravages of insects. It is difficult for would-be purchasers to obtain any certain

evidence as to the validity of titles that are offered to them, and loans upon real estate security are very difficult to obtain, because of the uncertainty of titles and boundaries. Before there can be any large additional industrial development, which depends upon certainty of tenure, a new system of accurate surveys, investigation, and registration of titles is indispensable. A system providing for these needs is in course of preparation.

CURRENCY.

It is unnecessary to repeat the historical data concerning the currency of the islands which were embraced in the report of the first Philippine Commission and in the testimony taken by that Commission. For present purposes it is sufficient to say that upon the arrival of the Americans in the islands the principal money in use here was the Mexican silver dollar or peso, supplemented by the Spanish-Filipino pesos, silver and paper, and fractional silver and copper coins. After the advent of American troops it was represented to the military authorities by the local banks that the further introduction of Mexican currency was essential. For some years prior to that time the introduction of Mexican currency had been unlawful under Spanish authority, although it had been constantly introduced for years with the connivance of the customs officials. On the 19th of August, 1898, the three banks doing business in the islands, namely, the Chartered Bank of India, Australia, and China, the Hongkong and Shanghai Banking Corporation, and the Banco Español Filipino, by their agents or managers, wrote as follows:

To Brigadier-General GREENE,

U. S. Volunteers, Finance Department.

DEAR SIR: Owing to the large amount of American gold being offered us for exchange into Mexican currency, and, further, the big sterling letters of credit advised us in favor of the paymasters and others which we understand will be required in Mexican dollars, as this is the only acceptable coin in use amongst the natives, and for general trading purposes, while we are anxious to give the soldiers and your Government every assistance by being in a position to quote an exchange of not worse than \$2 Mexican for \$1 gold, we shall be quite unable to preserve this basis of exchange should there be any scarcity. In view of this, and in order to give every facility for the exchange of United States gold currency, we may require to import clean Mexican dollars, duty free, and shall be obliged if you can see your way to grant us the necessary authority.

And we agree to maintain a rate of exchange of not less than two Mexican dollars for one gold dollar to the extent of our imports of Mexican dollars.

We remain, dear sir, your obedient servants,

R. W. BROWN,

Agent, Manila, for the Chartered Bank of India, Australia, and China.

WM. JONES,

Agent for the Hongkong and Shanghai Banking Corporation.

VENACIO BALBAS,

Banco Español Filipino, El Director de Turno.

This proposition having been approved by Major-General Merritt, then commanding in these islands, the following reply was sent on the same day:

HDQRS. SECOND BRIGADE, SECOND DIVISION, EIGHTH ARMY CORPS,
Manila, P. I., August 19, 1898.

Messrs. WILLIAM JONES, *Agent, The Hongkong and Shanghai Banking Corporation*;
R. W. BROWN, *Agent, Chartered Bank of India, Australia, and China*; V. BALBAS,
Director, Banco Español Filipino.

DEAR SIRS: Replying to your favor of this date, I have to say that your proposition is approved by General Merritt, and you are authorized, until further notice, to import Mexican dollars free of duty on the conditions therein stated.

I remain your obedient servant,

F. V. GREENE,
Brigadier-General, Intendente General.

In pursuance of the authority thus granted, the banks proceeded to import Mexican dollars, and American money was exchanged by the banks for insular or Mexican currency, and the reverse, with a profit to the banks for each exchange either way, at a ratio securing at least two Mexican dollars for one United States dollar, down to July, 1900.

The rates paid in Mexican money by the banks for United States money, from August 19, 1898, down to August, 1900, were as follows:

[For \$1 in American.]			
1898.		1899.	
	Mexican.		Mexican.
August 19.....	\$2.07	September 22.....	\$2.04
September 2.....	2.05	September 25.....	2.05
September 21.....	2.04	October 5.....	2.03
September 22.....	2.02	November 10.....	2.04
October 5.....	2.04	November 15.....	2.05
October 15.....	2.05	November 23.....	2.04
November 2.....	2.03	December 6.....	2.03
1899.		1900.	
March 4.....	2.04	January 31.....	2.02
April 28.....	2.02	February 1.....	2.01
April 29.....	2.00	April 5.....	2.02
July 26.....	2.01	June 25.....	2.01
September 9.....	2.02	June 28.....	2.00
September 15.....	2.03	July 31.....	1.98

It thus appears that down to late in July, 1900, the buying price of American money at the banks had always been such as to give at least \$2 in Mexican for \$1 American money, and varying from that price up to \$2.07. But during all this time the market price of Mexican coin had been such that the banks had not been to any expense to maintain their guaranty of August 19, 1898, but had always made a profit on the transactions. Owing in part to a rise in the price of silver in the markets of the world, and particularly to a demand for Mexican dollars for the payment of troops and purchase of supplies incident to the military operations in northern China, it became no

longer profitable for the banks to give \$2 Mexican for \$1 American money, and hence the rate of \$1.98 Mexican for \$1 of American money was quoted the latter part of July. Its effect was immediately to create a discrimination against American money. Small traders took advantage of the situation and would accept money only at the rate of \$1.50, \$1.60, \$1.70, or \$1.75 for a dollar, resulting in very great loss to all who had to make payments of any kind in American money. The people reasoned that if American money could go down to \$1.98 it could go very much lower, and that there was no reason why it should not be upon a par with the Mexican dollar. There was much disturbance in business circles, and the conditions were highly unsatisfactory.

The banks suggested as a remedy the purchase and introduction of a British dollar, coined at Bombay, largely for use in the Straits Settlement and China. The so-called British dollar at that time could have been imported into Manila on the basis of about \$2.01 or \$2.02 for \$1 American gold, but its bullion value as compared with the Mexican is very difficult to ascertain with clearness, and the apparent effect of its introduction would have been to enable the local banks to have placed it in their vaults in lieu of the Mexican currency which the Government had there deposited to the amount of upwards of \$4,000,000, and to export to China the Mexican currency belonging to the Government, and thereby secure a very large profit to themselves by the substitution. Meanwhile, an additional element of uncertainty would have been introduced into the money of the islands, and the certainty of continued stability of ratio between the different currencies under such circumstances would have been far from clear. As subsequent events have shown, the attempt to introduce the so-called British dollar would not have contributed in any degree to the desired relief, because that dollar has been made use of in the military operations in China to a considerable degree, so that only \$1.95 or \$1.96 of that currency could now be laid down in Manila for \$1 of United States gold. Apparently the difficulty would have been aggravated instead of being relieved by the adoption of the course which the banks recommended to the military governor and to the Commission.

As temporary measures, the military governor, on August 3, 1900, directed the collector of customs and collector of internal revenue to receive United States currency, tendered in payment of taxes and customs dues, at the rate of two to one, and the treasurer to receipt for all United States currency turned into the treasury by collectors on the same basis; and on the 11th of August, made an arrangement with the Hongkong and Shanghai Banking Corporation and the Chartered Bank of India, Australia and China, in which the Government deposits of insular funds were kept, whereby the banks were to purchase from the public United States gold, silver, and notes handed over the counter at two to one, giving a return to the treasurer every Monday of

the amount of the previous week's operation, an equivalent amount then being transferred from the insular currency dollars to the balance held by the United States Treasurer in his gold-deposit account, at the same rate of two to one. This arrangement enabled the public at any time to obtain at the banks two Mexican dollars for a dollar of American money, so that the public were furnished with a stable currency, and American money was freely accepted in business transactions at the ratio stated, because it could at any time be transferred into Mexican money. But it was the large deposit of Mexican money which the Government then had in the bank that enabled it to furnish this facility to the public, and whenever the balance of Mexican money belonging to the Government and deposited in the banks should have been exhausted, it would no longer be possible to maintain the ratio indicated, except by the purchase and importation of additional Mexican money, which would have to be done at a considerable loss. The practical working of this regulation has been to materially reduce the Government's deposit of silver, and to increase its deposit of American money, in some weeks with startling rapidity. The receipts from internal-revenue and customs dues have been largely in the form of local checks upon the banks, which were payable in insular currency, so that the supply of Mexican money was in that way to some extent constantly replenished, but the depletion has continued at quite a rapid rate, as will be seen from the following statement of the amounts of the Government deposits in Mexican money and in United States money, stated by weeks, from the 18th day of August, 1900, to the 17th day of November, 1900, inclusive:

Date.	Hongkong Bank.		Chartered bank.	
	United States currency.	Mexican.	United States currency.	Mexican.
August 18	\$117,949.95	\$2,440,910.10	.....	\$3,389,742.29
August 22	107,293.86	2,471,051.62	.....	3,216,413.58
August 25	218,061.48	2,433,083.57	.....	3,282,724.29
August 29	801,535.07	2,250,998.35	\$189,924.75	3,088,807.94
September 1	800,160.04	2,370,293.72	189,924.75	3,172,705.29
September 5	806,584.60	2,211,536.99	189,924.75	3,073,496.23
September 8	812,081.56	2,290,806.30	189,924.75	3,173,470.94
September 12	537,385.63	1,832,724.78	268,272.50	3,099,900.18
September 15	543,335.11	1,996,655.55	268,272.50	3,169,438.80
September 19	758,073.04	1,658,119.47	318,162.00	3,130,332.51
September 22	762,900.12	1,173,065.04	318,162.00	3,299,162.07
September 26	776,033.55	1,332,121.67	318,162.00	3,356,161.86
September 29	901,619.50	1,764,393.84	409,449.50	3,269,391.52
October 3	915,214.61	1,865,876.71	473,238.00	3,255,048.13
October 6	1,116,469.40	1,588,559.12	473,238.00	3,311,520.00
October 10	1,287,874.63	1,375,699.32	532,912.00	3,251,634.20
October 13	1,301,065.81	1,461,595.07	532,912.00	3,064,733.21
October 17	1,318,039.46	1,585,667.81	532,912.00	3,137,876.56
October 20	1,311,369.11	1,670,092.58	532,912.00	3,238,066.50
October 24	1,552,409.90	894,983.06	579,000.44	2,836,015.27
October 27	1,570,688.08	1,011,833.65	581,586.47	2,871,071.07
October 31	1,696,820.70	917,439.09	660,379.30	2,751,593.33
November 3	1,706,924.35	981,359.14	676,512.44	2,815,733.83
November 7	1,724,325.29	1,057,137.77	679,296.49	2,872,867.70
November 10	1,900,124.73	721,255.49	787,620.18	2,821,614.39
November 14	2,226,849.31	195,543.65	785,486.03	2,536,946.65
November 17	2,284,302.76	290,420.35	787,566.94	2,536,558.87

As partial remedial or palliative measures the Commission has enacted laws providing for the payment of all salaries under the civil service in the islands in United States money, and has made its appropriations in that money so far as practicable. Both these measures have a tendency to diminish the demand upon the banks for Mexican dollars and to increase the circulation of United States money. It has also, by enactment, imposed a customs tax of 10 per cent on all Mexican silver exported. The Commission are aware that it is ordinarily unwise to attempt to control the free interchange of commodities or currencies according to the varying demands of trade by legislative enactment, but the conditions here in respect to currency are so anomalous that it was considered necessary to pass the law above referred to, not as a general or permanent enactment or announcement of principle of legislation, but as a temporary provision in aid of the maintenance of the ratio of two to one between the American money and Mexican money until the currency can be placed upon a fixed and uniform basis. The local banks were engaged in the rapid exchange with their customers of the Government deposit of silver into gold, the silver being by these transactions transferred from the Government account to the account of private depositors, and then, standing in the general deposit of the banks, it was by them being rapidly exported. By this process the Government deposit of silver was being rapidly exhausted, while the banks were making a considerable profit out of the export. It was considered by the Commission that the banks were under strong moral obligation to aid in the maintenance of the ratio of two to one in view of the fact that they are the beneficiaries of the Government to the extent of having the use, without interest, of several million dollars of its deposits.

It is thought that this enactment will have a tendency to retain the Government's deposit of Mexican money and to make possible the maintenance of the ratio stated for a longer period. The necessity for this legislation might perhaps be better illustrated by the statistics of exportation of currency. Between the 27th day of August and the 1st day of November, 1900, the two banks aforesaid exported \$2,087,500, and the deposit of Mexican money belonging to the Government in those two banks was, during that same period, depleted nearly the same amount. The Hongkong and Shanghai Banking Corporation was by far the more active in this business of exporting Mexican money. During the period last stated it exported \$1,935,000, and the Chartered Bank of India, Australia, and China exported \$152,500. Between the 17th and 31st of October \$1,312,650 of Mexican currency was exported by the two banks referred to and by private speculators. In the three days that elapsed between the publication of the proposed legislation placing a tax upon the export of Mexican dollars and its enactment on the 12th day of November, \$1,133,500 Mexican currency was exported,

\$500,000 of that sum being exported by the Hongkong and Shanghai Banking Corporation, \$150,000 by the Chartered Bank of India, Australia, and China, and the remainder by private speculators.

One very serious obstacle to the more extended use of American money has been the requirement by the local banks that all deposits, with very few and special exceptions, should be made, and all checks drawn upon them, in Mexican currency, so that whenever a large check was drawn by any Government official upon the Government gold deposit, the person receiving the check could not deposit it as a gold deposit, but must exchange it for Mexican money, which he could then deposit. This exchange could be made by purchasing Mexican dollars at the market value, or by exchanging the gold realized upon the check for Mexican money out of the Government deposit of Mexican money, in accordance with the order of the military governor made on the 11th day of August, as before stated. But of course the holder of the check would not buy Mexican dollars at the market rate, but would obtain his silver from the Government's deposit, and then deposit it in the banks to his individual credit. As a matter of fact, the Mexican money did not leave the banks, but was transferred from the Government's deposit into those of individuals. Meanwhile the banks have never done anything, so far as we are able to discover, to fulfill their guaranty to maintain the ratio of at least two to one as between American and Mexican money, made on August 19, 1898. But in pursuance of the arrangement and guaranty of that date, between that time and August 21, 1900, they imported in round numbers \$12,188,169 Mexican, upon all of which they have been able to obtain a profit.

It is the opinion of the Commission that the banks have not cooperated to the extent that they legally and morally ought to have done in maintaining a ratio of at least 2 to 1 in pursuance of the guaranty of August 19, 1898, and that their refusal to receive deposits in United States money subject to check is a direct discrimination against United States money, and has been one of the effective causes of the difficulties of the situation.

At the present price of Mexican dollars their export from the islands is profitable, but should their market value depreciate slightly the difficulty would correct itself and the ratio of 2 to 1 could be maintained without loss to anyone. The Commission has passed a law requiring the banks to receive deposits of United States money subject to check upon the same terms as those accorded to deposits of Mexican money, without discrimination, and otherwise regulating the business of the banks so as to secure fair treatment to United States currency.

The maintenance of the ratio of 2 to 1 by the use of Government deposits for that purpose, as above detailed, has in a sense been

attended with a substantial financial loss to the insular treasury; that is, its deposits of Mexican money, which have been exchanged for gold at the ratio of 2 to 1, were worth more than the sum received for them in United States money, and could have been sold here or in Hongkong for more money, but if so sold the established ratio would have been destroyed and United States money have been depreciated. The advantages of a stable currency have more than compensated for this apparent loss; but, in another sense, the loss is only apparent, not real. The treasury has received for its Mexican money as much as it cost, and for most of it more, since it was mainly taken into the treasury when the prevailing ratio was such that \$1 of United States money was the equivalent of more than \$2 of Mexican.

It is apparent that as long as the principal currency of the islands is Mexican money, the ratio of exchange between it and United States money will be subject to constant fluctuations, not only as the market value of silver changes, but more especially as the artificial demand for Mexican dollars may increase or decrease in the great contiguous Chinese markets. Every such fluctuation operates to the injury of all business interests except that of the local banks and speculators in currency. The natives of the islands have been so long accustomed to the silver peso as the standard of exchange that it will be difficult to induce them speedily to make general use of the American dollar. The value of their labor and commodities is fixed in pesos, and if the American dollar should be substituted as the only legal tender, the natives are quite liable to demand the same number of dollars as they have heretofore received pesos for the same labor or commodity, and thus prices would be advanced very largely, and progress would, for a time, be greatly retarded. It seems to be desirable that some substitute for the Mexican dollar, as well as for the Spanish-Filipino dollar, should be provided which would be uniform in its relation to the United States dollar, and would commend itself to general public use as being substantially what they have long been accustomed to. We have interviewed a large number of leading business men of the islands, and they substantially all concur in the opinion that it would be injurious to business to place the islands immediately upon an absolute gold standard.

As a solution of the problem it has been suggested, and the suggestion has met the approval of the business men here generally, that the United States dollar, or a theoretical United States-Filipino gold peso, of the value of half a dollar, like the theoretical gold yen which is the unit of currency in Japan, should be made the standard of value, but that a silver United States-Filipino peso, containing a small percentage less silver than the Mexican dollar, should be coined, which would be receivable in business transactions as the equivalent of 50 cents in United States money, together with convenient subsidiary

coins of the same character. The amount of silver in the peso should be such a percentage less than that in the Mexican dollar that its intrinsic value would not at any time warrant its export from the islands, but its convertibility into American money at uniform fixed rates, guaranteed by the United States, would make it a convenient and useful currency for ordinary business transactions in the islands. Foreign trade would be conducted upon a gold basis, and domestic transactions upon the same basis, but with the token silver currency above indicated as an available method of conducting smaller transactions within the islands. The Mexican and Filipino silver coins in the islands could be recoined into the new United States-Filipino coins as fast as they came into the treasury, which would within a comparatively short time perform the functions now performed by the Mexican and Filipino silver coins. At a suitable later date the Mexican and Filipino coins could all be brought in for recoinage by a law providing that they should not be legal tender after a date fixed in the law. The local mint can be put in order for such recoinage within one month's time, according to the report of Maj. L. A. Lovering, acting inspector-general.

In order that the present condition of the mint may be fully understood, we annex the report of Major Lovering, made under date of October 15, 1900, and it is marked "Exhibit I;" and the profit from the recoinage would much more than pay the expense of such repair. The system here indicated was outlined in a cablegram to the Secretary of War, dated the 2d of September last. It is impossible to state, with any degree of accuracy, the amount of Mexican and Filipino silver now in the islands. A great portion of the Mexican silver that was here prior to the period of American occupancy was smuggled in, and there are no statistics to show its amount. The estimated amount of Mexican and Filipino currency in the islands is 35,000,000 or 40,000,000 pesos. The amount of United States money in the islands is constantly increasing by reason of the funds that are sent here for the payment of military expenses. If the Spooner bill, or other like legislation, should be enacted by Congress, it is thought by the Commission that further Congressional action would be unnecessary for the execution of the plan here outlined. Without such a coinage, or some other scheme that shall accomplish substantially the same result, it will be difficult or impossible to maintain the existing ratio of 2 to 1, if the price of silver and of Mexican dollars continues to appreciate in the markets of the world. Of course, the Government can purchase Mexican dollars and import them, and so undertake by main force to maintain the existing ratio; but so long as it should continue to be profitable to export Mexican dollars, and there should be no restrictions upon such export, it is apparent that the Mexican dollars purchased by the Government for the maintenance of the ratio between

the two would at once come into the hands of speculators, in exchange for American currency, and be exported at a profit, so that the process would be a continued one of heavy expenditures on the part of the Government, largely for the benefit and profit of the banks or private speculators. The law imposing an export duty upon Mexican money was passed in part for the purpose of meeting this contingency.

It is not considered necessary to embrace in this report further statistics as to the currency situation, because the treasurer of the islands in September last made to the Secretary of War, through the military governor, a report containing all available statistics down to that time, and conditions have not changed materially since the date of that report, except that the amount of Mexican currency to the credit of the insular government in the banks is now materially less than at that time, while the gold deposit has largely increased, as shown.

BANKS.

The report of the treasurer above referred to contains statements as to the financial condition of the banking institutions doing business in the islands, and the reports of each of such institutions, and that information need not here be repeated. As to the two principal banks, the Hongkong and Shanghai Banking Corporation, and Chartered Bank of India, Australia and China, a statement of their local condition throws little light upon the security of the Government deposits with them. It must depend upon the solvency of the two corporations as a whole, and not upon the local cash balances or available assets. Both banks are powerful institutions, having a large capital and great reserve, all of which stand as security for the Government deposits, aside from the \$1,000,000 of bonds which they have deposited for that purpose. There is nothing known to the Commission that would indicate any doubt as to the entire safety of the insular deposits in those banks, but in accordance with the recommendations of the Secretary of War legislation has been enacted providing for reports by all the banking institutions in the islands to the treasurer, at such times as he shall call for them, and requiring him to call for them with sufficient frequency to enable him to be thoroughly informed as to their condition from time to time, and also providing for an examination of the institutions by the treasurer. The business of the banks here has been highly profitable since American occupancy.

It is very desirable that banks should be established in these islands organized under laws of the United States. Apparently, Congressional action will be necessary to extend the system of national banks to the Philippine Islands and to enable such institutions to be organized here under the safeguards thrown around them by our laws. To be able to compete with the banks now doing business in the Philippine Islands, a national bank should have ample capital. The trans-

actions in exchange, growing out of the large imports and exports, involve great sums in the aggregate and in individual transactions, and an American bank ought to be able to meet the requirements of the largest business interests in this respect. The deposits of the funds of the insular government would, doubtless, to a considerable extent, be made in United States banks, and their deposits from individual commercial establishments would be large; the business of exchange would be highly profitable, and, as the industry and commerce of the islands continue to be developed, money would be in demand, so as to keep all available capital safely employed all the time. Such banks, also, would relieve the currency situation to a degree, by furnishing paper money for ordinary business uses, which has a great advantage over the bulky silver now generally in use.

The existing law relating to the Filipino-Spanish bank is fully stated in the documents contained in the Treasurer's report above referred to. The bank was in a somewhat straitened condition soon after the American occupancy, owing to the large advances which were made to the Government of Spain, but its claim against the Government of Spain has been adjusted, and there is nothing now to indicate that the bank is not in a safe condition. It is paying 8 per cent dividends and its stock sells at a considerable premium. The amount of bank notes or bills issued by it under its charter, and outstanding, on August 31, 1900, was \$2,700,750 Mexican. The amount outstanding at a corresponding date in 1898 was \$2,608,400, and in 1899, \$2,077,895. It is supposed that a considerable portion of this paper money has been lost or destroyed.

CUSTOMS.

The custom-house at Manila was opened for business by the United States military government August 20, 1898. The Spanish tariff and customs regulations found in force were continued.

In anticipation of the occupation of Manila a translation of the Spanish tariff, with some modifications, had been prepared in Washington prior to the arrival of the troops, and by order of the President, dated July 13, 1898, directions were given to proclaim and enforce this tariff in the islands as soon as the United States forces obtained possession. This tariff and the accompanying orders were received at Manila in September, after the custom-house had been in operation for some weeks. It was at once published, to take effect October 1, 1898. The proclamation of this new tariff and the short notice given of the change brought forth many protests, petitions, and requests from merchants and other persons doing business in Manila, and it was decided by the military governor that if put into effect at once the new customs duties would derange trade and prejudice American interests. He therefore postponed its enforcement until November 10, 1898. Meanwhile a board of officers was appointed

to consider the modification of the consumption or excise taxes on cigars and cigarettes which had been proposed by the authorities in Washington in connection with the tariff. Upon recommendation of this board these excise taxes were suspended. In October, 1898, an expert on revenue matters sent out by the War Department to aid in the preparation of the tariff arrived at Manila, and he was instructed to make such revision as seemed needful. The tariff and regulations prepared by him were practically a translation of the Spanish tariff and regulations, and were put into force November 10, 1898, in place of the tariff above referred to, which had been prepared in Washington. The tariff and regulations thus established, with some slight modifications which appeared necessary from time to time, are still in effect.

The Spanish tariff and customs regulations were framed to meet conditions essentially different from those which have prevailed under American rule, and in consequence there is an urgent need for revision. Objections have been made both to the tariff itself and to the regulations under which it is enforced. The objections to the regulations are, however, of much greater frequency than those to the tariff. It is complained that the present regulations involve unnecessary delay and expense in clearing goods, and constitute a serious restraint on trade. The rates of duty have been criticised in numerous instances, and there are serious faults in the classification, but there has been comparatively little complaint with the tariff as a whole.

A thorough revision of the tariff and of the regulations was begun in June, 1900, by a board of officers appointed by the military governor under instructions from the War Department. By order of the Secretary of War this board reported to the United States Philippine Commission on August 25, 1900, and turned over with its report all the information, correspondence, papers, etc., which it had collected as bearing on the revision. The United States Philippine Commission has taken up the task of revising the tariff, and has a new tariff law nearly completed. When completed and approved the new tariff law will be published, and a sufficient interval allowed before it goes into effect to enable importers to adjust their business thereto. In the interval the regulations will be revised in the form of an administrative act to go into effect on the same date as the tariff.

The Spanish tariff now in force consists of: (A) specific duties on all imports, (B) surtaxes for harbor improvements, (C) so-called *ad valorem* taxes on imports, (D) consumption taxes on certain imports, (E) miscellaneous charges, and (F) export duties. In its present form it originated in the royal decree of January 7, 1891. This decree established specific duties on all goods imported to these islands, and upon certain goods exported. Other taxes were established subsequently, as will be explained below.

A.—The specific duties.—The decree of 1891 established specific duties upon all imports into the islands, and upon certain exports from the islands. There were in the tariff no ad valorem duties properly so called. The specific duties established by this decree were based in large measure upon the rates prevailing prior to 1891. Those rates were originally, that is, prior to 1828, 10 per cent ad valorem. (For an account of the tariff board created in 1828, see report of the first Philippine Commission, vol. 1, p. 78.) But the practice of fixing the values at which goods imported might be declared and of levying 10 per cent of these fixed values developed a tariff of fixed charges, and, with certain exceptions, the royal decree above referred to simply transformed these fixed charges into regular specific duties. The departures from the original principle of making the duty equal 10 per cent of the value of the imports were made in some cases to protect island industries, but they were mainly intended to favor the market for Spanish goods.

In accordance with the general principle governing the Spanish colonial policy goods or merchandise coming from Spain and entering the ports of the islands under the Spanish flag were exempt from the payment of these duties. The United States Government continued this exemption on all goods leaving a Spanish port prior to April 25, 1898, the date of the formal declaration of war by the United States, and arriving in these islands prior to November 10, 1898. On the latter date this privilege ceased, and since then Spanish goods have paid the same duties as those from other nations.

B.—Harbor improvement tax.—As early as 1880 a board for harbor improvements (Junta de Obras de Puerto de Manila) had been established at Manila under royal decree, looking to the construction of requisite harbor facilities. To furnish a fund for this purpose the board was allowed to collect a tax amounting to 20 per cent of the regular duties on all merchandise, and in addition thereto. Goods originating in Spain paid this tax, although exempt from the regular duties. It was collected by the board itself and not by the customs authorities.

In 1891 this surtax was reduced from 20 to 10 per cent, and instead of being confined to Manila was extended to the other ports of the islands. The collection of the tax from that time on was made by the customs authorities and the funds were turned into the treasury. But the moneys so obtained were, according to the tenor of the royal decree, to be reserved for the improvement of the harbor in the ports at which it was collected. This surtax of 10 per cent being in force at the time of the American occupation was continued, and is now an integral part of the customs tariff.

C.—The so-called Ad Valorem Taxes.—For a number of years, beginning with 1890, the Spanish Government had experimented with taxes

for "loading" and "unloading" (carga and descarga) as a possible substitute for export taxes. The result of these experiments was the establishment in 1896 of an "unloading" tax (descarga) of 2 per cent ad valorem on all goods coming into the islands, including those from Spain. This tax was based upon a table of fixed official values prepared in Spain under the provisions of the royal decree of August 16, 1895. This table of values was given official recognition in the Philippines by order of General Blanco, August 28, 1896, and the 2 per cent "descarga" was in force at the time of the American occupation. Although this tax was established just after the discovery of the insurrection (August 19, 1896), it does not appear that it was conceived as a means of raising additional revenues for the prosecution of the war. It was simply a substitute for the older taxes at varying rates for "loading" and "unloading."

One year later, by royal decree, dated August 14, 1897, and put into force by order of General Rivera, August 20, 1897, the Spanish Government established an extraordinary tax of 6 per cent ad valorem based on the aforementioned table of official values. This tax covered Spanish goods as well as those of other countries. It appears to have been purely a war tax. It was still in force when the American forces took possession of Manila.

As both the 2 per cent "descarga" and the 6 per cent extraordinary tax were levied on the table of values, the United States custom-house simply added the two together and levied 8 per cent ad valorem, so called, upon all imports, in addition to the specific duties according to the table of official values.

D.—Consumption taxes.—By royal decree, dated August 24, 1896, and put into force in the islands August 27, 1896, certain so called consumption taxes, to be collected by the customs authorities, were established. These took the form of additions to the import taxes on spirituous liquors, beer and cider, vegetables, flour, salt, and on petroleum and other mineral oils. The tariff prepared in Washington proposed the removal of these taxes so far as vegetables, flour, salt, petroleum, and mineral oils were concerned, and the substitution of an internal-revenue tax on cigars and cigarettes. But a special board of officers, appointed by the military governor on the 24th of September, 1898, to consider the effect of this change, reported that the proposed tax was inequitable as between cigars and cigarettes, and recommended that this section of the law be suspended. (See report of Lieutenant-Colonel Spurgin, Sixth U. S. Infantry, collector of customs, dated Manila, P. I., September 27, 1899, published in the Appendix to the Annual Report of Major-General Otis, military governor of the Philippine Islands, Manila, 1899, Appendix S.) The result was that the old Spanish consumption taxes were restored in toto, and that they are still in force.

E.—Miscellaneous charges.—In addition to the foregoing taxes, which constitute the tariff proper, all goods exported pay wharf charges and harbor dues of 1½ pesos per ton of 1,000 kilos, and all goods imported and destined for transshipment to other ports in the islands pay wharfage of one-half peso per ton of 1,000 kilos. The vessels carrying the goods also pay on entry at any port a tonnage tax or light-house dues of 0.10 peso per net ton and stamp taxes on the ship's papers; the latter amount in all to 4 pesos.

F.—Export duties.—The principal exports of the islands, namely, hemp (abacá), indigo, rice, sugar, cocoanuts (copra), and tobacco, were each subject to a specific duty. These export duties have been in operation for many years, and have yielded a revenue as high as 700,000 pesos in one year. For the two years 1891 and 1892 they were suspended, and the effort was made to obtain an equal revenue in the form of the taxes for loading and unloading, referred to above. The export duties were, however, restored in 1893, and are still in force. The rates are extremely low, amounting to about 2½ per cent, and there is no evidence to show that they affect the market for the products taxed. As the industries thus taxed do not contribute in any other way to the support of the government, there seems to be no objection to the retention of these revenue taxes.

The items included under the first four of the above heads constitute a fixed charge for each item imported, as will be more readily seen from the following calculation of the total duty on 100 kilos of salt:

	Pesos.
Duty (according to the tariff of specific duties).....	.650
Surtax (10 per cent of the above duty).....	.065
Ad valorem tax (8 per cent of the official value, 0.40 peso).....	.032
Consumption tax.....	1.000
Total duty.....	1.747

The amount of the total duty on any one article per unit of weight never varied, although, under the Spanish administration and for the first two years of the American administration, each item was calculated as in the above illustration. For the convenience of the public and of the customs authorities themselves, a pamphlet was published September last showing the consolidated duties on each article. Had this been done in the beginning, much misunderstanding of the charges and many errors in the calculation of the duties would have been avoided.

It is somewhat difficult to arrive at an estimate of the exact burden which the tariff lays on the commerce of the islands, owing to the fact that the invoice values are not used as a basis for calculating the duties and do not necessarily correspond to the true market values. At the same time there is no temptation to understate the values, as would be the case if the declared values were used as the basis for the tax. The statistics published by the Spanish Government end with the year 1894, and the records for later years are missing. As most of the rates were

altered between that date and the American occupation, these older records are not particularly useful for comparisons. Moreover, we can not now ascertain the principles on which the Spanish statistics were compiled, and can not, therefore, correct the many apparent errors and contradictions with which these reports are filled. But taking the figures as we have them, it appears that the Spanish tariff imposed, in 1894, a burden of about 16 per cent on the commerce of the islands, goods from Spain being excluded from the calculation. Taking the declared values as a basis, the total duties collected by the United States custom-houses in the islands on all dutiable imports amounted to 23.7 per cent ad valorem, which corresponds quite closely to the result obtained above from the Spanish statistics, if allowance be made for the 8 per cent ad valorem taxes which were added to the Spanish tariff between 1894 and 1898. On all the imports, free and dutiable together, the burden is about 21 per cent. It is safe to say, therefore, that the import duties consume about one-fifth of the value of the goods.

It is, however, much more important to consider the effect of the duties on particular articles. A duty on some one article so high as to be well nigh prohibitory would not affect the general average, as such articles contribute very little to the total duties paid.

Of the twenty-one commodities the total importation of which exceeded \$100,000 gold during the calendar year 1899, one, namely, glass, paid 9.1 per cent, and one, petroleum, 127.2 per cent of the invoice values. The following table shows that the burden of the duties is very unequally distributed among these twenty-one commodities:

Values of importations and duties collected on commodities the total importation of which exceeded \$100,000 (gold) for the year 1899.

[Values are stated in terms of United States gold coin.]

Commodity.	Value.	Duty.	Rate.
Cotton:			<i>Per cent.</i>
Raw (391,291 pounds).....	\$28,525	\$1,713	6.0
Yarn (1,033,919 pounds).....	542,382	85,744	15.6
Manufactured.....	3,831,298	994,105	25.6
Rice (143,527,169 pounds).....	2,349,666	449,882	18.2
Glass.....	574,456	52,810	9.1
Paper and manufactures.....	510,343	98,881	19.3
Wines.....	420,196	101,266	24.2
Flour.....	362,798	73,504	20.2
Books (paper covered free).....	312,895	20,357	6.5
Iron:			
Raw.....	206,771	40,080	19.3
Cutlery.....	88,646	6,441	16.6
Machinery, etc.....	116,312	18,454	15.8
Opium.....	276,676	92,679	33.4
Spirits.....	276,213	121,541	44
Malt liquors, etc.....	275,769	99,060	36.2
Eggs.....	187,325	.....	Free.
Matches.....	163,964	32,275	19.6
Silk manufactures.....	163,374	34,156	20.8
Cocos.....	160,579	19,516	12
Prepared foods.....	155,727	14,779	9.4
Earthenware.....	150,342	22,723	15
Petroleum.....	144,877	184,388	127.2
Paints and colors.....	139,771	11,362	8.1
Shoes and sandals.....	123,211	23,236	18.8
Meat.....	101,708	30,067	29.5
Total dutiable.....	16,820,398	3,364,090	20
Total imported.....	18,707,483	3,364,090	18

One striking characteristic of the Spanish tariff is that it discriminates in a marked way against the poor and in favor of the rich. Thus, in the above table it will be seen that cotton cloth and rice, the poor native's dress and food, pay 25.6 per cent and 18.2 per cent, respectively, while silk and prepared foods pay only 20.8 per cent and 9.4 per cent, respectively. Beer is not a beverage of large consumption among the natives and, moreover, the Spanish duty on beer protected an industry for which a monopoly was claimed. But, nevertheless, it seems remarkable that the duty on beer should be 0.9277 peso per liter when the duty on champagne is only 0.355 peso per liter. The application of specific duties to classes containing both high and low priced goods caused a similar discrimination in favor of the rich. Thus boots and shoes of all kinds pay the same rate, lamp chimneys and cut-glass decanters are in the same class, and a fireproof safe pays at the same rate per 100 kilos as a bicycle or a typewriter. The taxation of articles according to their component materials operates in many cases in the same direction. Thus, for example, clockworks, unfinished, pay duty as "common wrought iron or steel in pieces of less than 25 kilos each," or at the same rate that is applied to horseshoes. Other illustrations of each of these characteristics can be found in almost every number of the tariff.

A number of infelicities arise from the system of levying duties upon complex manufactures according to the materials. Thus, electrical appliances pay duty as iron, brass, porcelain, rubber, lead, etc., in proportions which it is always difficult to adjust to the mutual satisfaction of the importer and of the custom-house officials.

While there is no distinct discrimination against American products, some of them stand under peculiar disadvantages. Thus, in cotton goods the duty per yard increases with the number of threads per square inch, and with the weight in such a way that the American cottons have to pay a higher duty in proportion to value than the heavily clayed German and English goods with which they most directly compete. The duties on smoked or salted meats and on canned goods are so high that these important American products are practically excluded. In the revision of the tariff care has been taken to see that American goods have as good an opportunity to enter this market as those of any other nation.

The increase in the commerce of the islands since the American occupation and the consequent increase in the revenues has been phenomenal. This can not be regarded otherwise than as gratifying evidence of the general confidence which our administration has assured.

The largest importations for any one year given in the Spanish reports available were in 1894, when the total was 28,529,777 pesos (about \$14,264,888) and the duties on these imports amounted to 3,695,446 pesos. (Spanish goods valued at 10,509,937 pesos were

admitted at reduced rates.) The imports for the calendar year 1899, with only three ports open and two of these for only a part of the year, were 42,176,362 pesos (about \$21,088,181) and the duties collected amounted to 7,855,521 pesos (about \$3,927,760). In the nine months from January 1 to September 30, 1900, the imports have been 33,655,518 pesos, and the indications are that they will exceed 50,000,000 pesos before the close of the year. These figures do not include any goods imported by the commissary or quartermaster for the use of the Army. Briefly stated, the imports were 47 per cent greater the first year, and 75 per cent greater the second year, than under the most favorable circumstances under Spanish rule. That this increase should occur in the face of actual warfare, and of the disturbed conditions of commerce and industry resulting from the war, makes it all the more significant. The imports from all countries except Spain have increased; those from Spain have fallen off about one-half, i. e., from 10,509,987 pesos in 1894, to 5,249,758 in 1899.

The tables marked Exhibit K, show the business of the custom-houses at the different ports since they were opened for business under American authority.

THE PRESENT SYSTEM OF INTERNAL TAXES.

The sources of internal revenue are of five classes:

1. The so-called industrial taxes.
2. The urbana taxes.
3. The stamp taxes.
4. The sale of certificates of registration (*cédulas personales*).
5. The public domain.

The industrial taxes and the urbana taxes together constitute practically an income tax of, roughly, 5 per cent on the net income of persons engaged in industrial and commercial pursuits and on the owners of improved city property. The so-called industrial taxes may be divided into two classes: First, those levied upon persons whose salaries, emoluments, or profits are easily ascertainable. In this class the rate is 5 per cent upon the annual salaries or profits. Second, those levied upon persons whose profits could be readily concealed. In this class the assessment is made upon the basis of certain easily ascertainable characteristics of the business in which the taxpayer is engaged, and the rates are in the form of a tariff, the amount charged in each case being, roughly, the equivalent of 5 per cent of the average annual profits. In both classes the rate is lower than 5 per cent for persons whose incomes are comparatively small. Under the first class, for example, the director or manager of a corporation will pay 5 per cent on his salary or other compensation, the shareholders of the corporation will be taxed 5 per cent on the dividends they receive, the tax

being paid by the corporation before the dividend is distributed, and the employees of the corporation will pay $2\frac{1}{2}$ per cent on their salaries, provided the salaries exceed 600 pesos.

Under the second class a person engaged in the sale of general dry goods in a shop or store will pay either 400 pesos per annum, if his business is large enough to warrant the direct importation of the goods, or 200 pesos if he is not an importer, or 300 pesos if in addition to dry goods he sells jewelry with pearls or precious stones. An examination of business actually conducted under each of these three conditions reveals the fact that the rates charged are, roughly, 5 per cent of the net profits commonly obtained. Again, under the second class, the owner of a small hardware shop located in a detached house or gateway, with but one door and without a storehouse, pays 100 pesos; if he has a godown or storehouse, 120 pesos; if he has two doors but no godown, the same; if he has two doors and a godown, 150 pesos. In the same way all the industries and shops of the islands are classed into groups according to the simplest available characteristics which indicate in any way the size of the business done and the possible profits. The characteristics chosen to determine the rates conform to the traditional and customary forms for the organization of each of the different kinds of business, and are marked with sufficient clearness to make the administration easy.

This tax has been in use in the islands since July, 1879, without material change, and constitutes one of the conditions to which business is adjusted. Under the Spanish administration the industrial taxes yielded in 1896-97, 1,400,700 pesos, an amount which, under our administration, might possibly be doubled.

The urbana taxes.—The urbana taxes supplement the industrial taxes. As explained above, the latter fall on salaries and on profits accruing from manufacturing and commercial enterprises, while the former fall on income from rents. The rate is again 5 per cent, and is assessed on what is assumed to be the net income from houses, namely, the annual rental value less 25 per cent for repairs and maintenance. It should be observed that this tax covers the income from the site as well as that from the building, as it is assessed on the rent. Houses that are unoccupied, or that are occupied by the owners, are taxed according to what they would rent for, which is determined by reference to other houses in the same locality. The owner is required to state the rent, and his statement is verified by an examination of the receipts in possession of the tenant.

Exemptions.—1. Buildings renting for less than 26.66 $\frac{2}{3}$ pesos per annum are exempt. The tax on such buildings would only amount to 1 peso per annum, an amount which is scarcely sufficient to warrant the cost of collection. There is little objection to this exemption, as

the owners or occupiers of such houses are obviously poor, and are, moreover, taxed in other ways.

2. All public property, including buildings used as hospitals, asylums, and charitable or educational institutions belonging to private persons, provided they are loaned to the Government rent free.

3. Buildings owned and occupied by religious communities, and buildings which serve as residences by parish priests.

The urbana taxes yielded 140,280 pesos in 1896-97. That they would increase rapidly if maintained under our administration is shown by the fact that the receipts from this source in the city of Manila alone amounted to 125,047 pesos in 1899-1900.

Stamp taxes.—These are taxes collected by the sale of stamped paper and adhesive stamps, which the law requires shall be used for—(1) Legal documents of all descriptions; (2) for drafts and bills of exchange and receipts; and (3) for the payment of fines to the State. The receipts in 1896-97 amounted to 870,000 pesos, but these included 220,000 pesos for telegraphic and 100,000 pesos for postal communications, and 24,000 pesos for fines remitted, leaving a net balance of 546,000 pesos.

Certificates of registration (cédulas personales).—The *cédulas personales*, as used by the Spaniards, constituted a poll tax graduated according to the amount of direct taxes paid by the citizen, or according to his income. The rates ranged from nothing for certain privileged classes up to 25 pesos (later 37.50 pesos). Special schedules (*cédulas*) were provided for the Chinese, the rates for which ran considerably higher. These taxes were decidedly unpopular. The rates were undoubtedly too high, and the administration and collection was conducted in a most oppressive manner. The collection was enforced in ways that were particularly obnoxious, and was connected with other legislation that was oppressive and unpopular. A tax of this general character, however, seems necessary, whatever the system of taxation adopted, as there is no other way of reaching the great mass of the people who are not reached by the other taxes. But there seems to be no necessity for a graduated scale.

On the American occupation these taxes were abolished. But it was found that the possession of such a document for the purpose of identification was required by the procedure of Spanish law; and subsequently the sale of certificates was resumed at a nominal and uniform rate of 0.20 peso each, an amount which was supposed to be just sufficient to cover the cost of issuance.

The *cédulas* constituted the largest item in the list of revenues, amounting to 7,000,000 pesos.

Land tax.—The land of the Philippine Islands has hitherto remained essentially free from taxation. The fact that the owners of the land have been especially powerful in determining the policy of the Govern-

ment may have had much to do in establishing this condition of affairs. The result has been to relieve the bulk of the property of many persons from taxation, and by so much to increase the burdens of those whose property was not in land. Inasmuch as a large amount of the property of the rich has consisted in land, the exemption of this form of property from taxation has directly favored the rich at the expense of the poor. A well-ordered land tax, which it is proposed to levy, will not only abolish this injustice but will become an important source of revenue.

IMPORTANT RECEIPTS OF THE SPANISH GOVERNMENT NOW SUSPENDED.

In addition to the items of revenue discussed above, the Spanish Government collected the following amounts:

1. From the contract for the sale of opium, yielding in 1896-97, 576,000 pesos.
2. Lotteries, yielding in 1896-97, 1,000,000 pesos.
3. From coining money, yielding in 1896-97, 200,000 pesos.

It seems to be impracticable to resume the second of these receipts. Opium, however, is a very legitimate and lucrative subject of taxation. Any repressive effect which a heavy tax on opium may have on its consumption is a clear gain to the well-being of the community, which will more than offset the loss of revenue. Prohibition of its use can hardly be enforced, and, in view of the fact that a high duty would lead to extensive smuggling, some other form of a tax must be devised to make opium return its proper contribution to the revenue.

The Spanish administration found an advantage in the internal taxes here outlined in that they were easily and cheaply collected. These taxes passed as an inheritance to the Americans and, with certain modifications, they have been collected down to the present. The most important modification effected was the abolition of the certificates of registration (*cédulas personales*), closing a source of revenue that had produced about 7,000,000 pesos annually. This left a revenue of less than 2,000,000 pesos, but much of the injustice and annoyance of the old system remained. The taxes bore heavily on the poor, because land was exempt from taxation, thus throwing the burden of furnishing the required revenue on industrial and commercial pursuits, and because the lowest rate on shops was exorbitant when required of the large number of very small traders. It is believed the so-called industrial taxes, the urbana taxes, and the stamp taxes require either a thorough readjustment or complete abolition, and that new sources of revenue may advantageously be found in a reasonable ad valorem land tax, a proper corporate franchise tax, and a tax on such pursuits as require special police supervision, which will produce less annoyance than the existing system and return an adequate revenue.

EDUCATION UNDER SPANISH RULE.

Under Spanish rule there was established in these islands a system of primary schools. The Spanish regulations provided that there should be one male and one female primary school-teacher for each 5,000 inhabitants. It is clearly shown in the report of the first Philippine Commission that even this inadequate provision was never carried out. They say: "Taking the entire population at 8,000,000, we find that there is but one teacher to each 4,179 inhabitants." There were no schoolhouses, no modern furniture, and, until the Americans came, there were no good text-books. The schools were and are now held in the residences of the teachers, or in buildings hired by the municipalities and used by the principals as dwellings. In some of the schools there were wooden benches and tables, but it was not at all unusual to find a school without any seats for the pupils. In these primary schools reading, writing, sacred history, and the catechism were taught. Except in a very few towns, the four elementary arithmetical processes were attempted, and in a few towns a book on geography was used as a reading book. Girls were taught embroidery and needlework. From the beginning the schools were entirely under the supervision of the religious orders, who were disposed to emphasize secondary and higher education for a few pupils rather than to further and promote the primary education of the masses. The result of this policy is that a few persons have stood out prominently as educated Filipinos, while the great mass of the people have either not been educated at all or furnished only the rudiments of knowledge, acquiring merely the mechanical processes of reading and writing. The little school instruction the average Filipino has had has not tended to broaden his intelligence or to give him power of independent thought. One observes in the schools a tendency on the part of the pupils to give back, like phonographs, what they have heard or read or memorized, without seeming to have thought for themselves. As a rule, they possess mechanical skill, and they excel in writing and drawing. The Spaniards made very little use of this peculiar capacity.

It is stated on good authority that when the Spaniards came here several of the tribes of the Philippine Islands could read and write their own language. At the present time, after three hundred years of Spanish domination, the bulk of the people can not do this. The Spanish minister for the colonies, in a report made December 5, 1870, points out that, by the process of absorption, matters of education had become concentrated in the hands of the religious orders. He says: "While every acknowledgment should be made of their services in earlier times, their narrow, exclusively religious system of education, and their imperviousness to modern or external ideas and influences, which every day become more and more evident, rendered secularization of instruction necessary."

Many of the characteristics of the Filipino schools, as established by the Spaniards, are still unchanged. It may be said that in the typical provincial school at first a kind of religious primer was read in the native language, and that later a book on Christian doctrine was taught. The text-books found in the schools were crude, and provided a large amount of religious instruction. The pupils have been obliged to learn by heart the exact words of the text-book. The teacher, with book in hand, hears one pupil at a time; the others at the same time are studying aloud, apparently doing their best to drown the voices of both the teacher and of the pupil reciting. The teacher only asks the questions that are written down in the book. To the visitor the instruction as carried on by the native teachers seems tediously mechanical, noisy, and hardly effective or economical. The teachers do not have fixed daily programmes, and so the time of the school is not well distributed.

Generally those who attend school are from 7 to 10 years of age. The teachers are classified according to the importance of the towns where they serve. Compensation has been so inadequate that the teachers' calling has been greatly underestimated. No provision has been made for courses of instruction for those engaged in teaching. There is apparently no professional enthusiasm. Appointments have been governed largely by the term of service of the teacher, regardless of the quality of the service. It has been stated that in 1897 there were in these islands 2,167 public schools. The ineffectiveness of these schools will be seen when it is remembered that a school under the Spanish régime was a strictly sectarian, ungraded school, with no prescribed course of study and no definite standards for each year, and that they were in charge of duly certificated but hardly professionally trained or progressive teachers, housed in unsuitable and unsanitary buildings.

EDUCATION IN THE PHILIPPINE ISLANDS UNDER AMERICAN MILITARY GOVERNMENT.

General Otis wished military officers to open as many schools as possible. He selected and ordered the text-books now in use. Several of the district commanders appointed officers to act as superintendents of schools. Among these there were several army chaplains. In a few instances these attempts at supervision of schools have been successful. In northern Luzon about 120 schools have been opened and fairly well equipped with stationery and supplies. The main difficulty in this region has been to get teachers. For instruction in English soldiers have sometimes been detailed, but in spite of the efforts of the military officers it may be said in general that education throughout the islands is in a chaotic condition. The schools that have been established are poor. There is no attempt at gradation of pupils, and the work, lacking supervision, is aimless. According to

reports received from district commanders, there are at present about 1,000 schools open. Prior to September 1, 1900, approximately \$41,000 was expended for stationery and text-books ordered by the military governor. A portion of this material has been used in Manila. Most of the text-books ordered were in Spanish.

Outside of Manila very little has been done in instruction in English. The soldiers detailed to teach have not always been successful, and the commanding officers are unanimous in urging English instruction and in asking for trained English teachers. The natives are reported as eager to learn English, and the use of Spanish or the native dialects is generally deprecated. Buildings of some sort are reported to be available, but except in a few cases are said to be unsuitable. Throughout the islands the practice still prevails of allowing the principal and his family to live in the school building. This is condemned by those who have reported concerning the practice. The salaries are low, but higher than those stated in the report of the first Philippine Commission. Probably \$12 Mexican per month for women and \$20 Mexican per month for men would be a fair average. In many cases it is reported from provinces that the natives can do nothing for themselves except to provide schoolhouses, which they are quite willing to do. Books and stationery and English teachers must be furnished by the Government. Until a land tax shall have been levied, financial aid will have to be furnished to certain pueblos too poor to pay even the small salaries of the native teachers. In one of the reports received, Captain Echols says:

To teach English to the natives a knowledge of Spanish or Tagalog is not necessary. I at one time had charge of 4,000 American Indians, with 6 American boarding schools. Not a child could speak a word of English on entering the schools, and in three months from entry these children could speak it fairly well, and this was accomplished by teachers utterly unfamiliar with any one of the numerous native dialects.

PRESENT EDUCATIONAL OUTLOOK.

By consultation and correspondence with military officers, presidents, and others, an effort has been made to ascertain the exact educational situation and the general opinion as to the educational policy to be pursued. A great diversity of opinion, due largely to the diverse social conditions existing in the archipelago, has been discovered.

On September 1, 1900, Dr. Fred W. Atkinson assumed the duties of general superintendent of education, and he has been acting—until recently relieved by Dr. David P. Barrows—at the same time as superintendent of the schools in Manila.

Undoubtedly a well-directed system of education will prove one of the most forceful agencies for elevating the Filipinos, materially, socially, and morally, and preparing them for a large participation in the affairs of government. Effort is being made to provide a

system of public instruction adapted to the conditions existing in the different islands. According to the American standard, the ideal school is a nonsectarian, graded school, with a prescribed course of study and definite standards for each year, under charge of trained teachers and housed in suitable buildings. Some modification of this ideal must be allowed, however, to bring the means of instruction within the reach of the entire child population of these islands. In some of the smaller towns schools will have to be organized under conditions which will preclude an immediate compliance with the standard to be set for the larger towns, and in the sparsely settled portions of the country it may be necessary for teachers to go from barrio to barrio, as is now done in some parts of Norway and Sweden. Common schools must be established everywhere, and as a minimum standard every child must be taught arithmetic and to read and write the English language.

In addressing the Commission on November 21, 1900, concerning the bill providing for local civil government in the province of Benguet, Mr. Otto Scherer, who has lived for many years among the Igorrotes, spoke as follows of their attitude toward education:

I beg to call the attention of the Commission to the great urgency felt even by the Igorrotes of Benguet that schools be established, and not only town schools in the old fashion, but an English school in the future capital of the province, which will be Baguio. For these schools I ask you especially for the financial assistance of the insular government, because without such aid schools would be organized which it would be better not to organize at all. I have sounded the opinion of several Igorrotes in Benguet as to schools, and I am glad to be able to say that I find them convinced of the great necessity of rising from their present state of illiteracy, as it is recognized by them as the origin of many of their troubles. They are quite prepared to immediately build schools, but the erection of the buildings would be all they could do by themselves, and this only on condition that the insular government would allow them to cut timber in the public woods free of charge, and that security be given to them that the buildings they erect for schools be not given any other destination after completion.

SCHOOL ORGANIZATION.

The peculiar conditions existing here demand a centralized control of the public-school system. There should be careful State supervision of all public schools. Insular or provincial superintendents will be needed to assist the general superintendent. Town and city superintendents will hardly be possible for some time. District superintendents, corresponding to our county system, will be established at first. In the centralized system of school organization, which is best fitted for this archipelago, the general superintendent will find the district superintendency a most efficient channel in reaching the people of these islands, and in furnishing an opportunity for learning the needs of the various parts of the archipelago. The duties of the district superintendents will be to see that schools are established and

proper buildings constructed, to regulate courses of study, to inspect schools regularly, to pass upon the qualifications of teachers, and to collect and transmit school statistics to the central school authorities. It is essential to the proper success of the educational system here established that these superintendents should be men of integrity, business ability, and professional skill. An effort will be made to insure the success of the schools throughout the archipelago by interesting local authorities in their development and maintenance. It will be found advisable to have a visiting and advisory committee or board in every town, this board to be charged with the duty of the general supervision of the schools and the obligation of reporting monthly to the department superintendent their condition and the attendance of the pupils. It will also advise the central authority as to the location of schools. At first local control may be impossible in some places, but the affairs of the school management will be so ordered as to stimulate local effort.

LANGUAGE BASIS OF INSTRUCTION.

It is not practicable to make the native languages the basis of instruction, for this would necessitate the translation, not merely of school primers but of many texts of every sort, into the principal native dialects. Most of the commanding officers in the provinces who have reported state that "no instruction in native dialects is desirable," and also that there is no need of perpetuating the Spanish language, for it is understood by only a small part of the native population. English is desired by the natives, and undoubtedly it should be the language basis of public-school work, but it should be introduced gradually. Teachers sent out into the provinces will be encouraged to learn the dialects of the people with whom they are associated. The text-books which are now in stock, purchased by the military authorities, have been selected largely with the idea that what is suitable for Manila is suitable for other portions of the archipelago. Spanish editions of Wentworth's Arithmetic, Barnes's History of the United States, and Frye's Geography have been ordered in large quantities. These text-books in Spanish, which were ordered by the military department of education and are now being distributed in the schools, are unsuitable, as they tend to perpetuate the Spanish language and to delay the introduction of English as a basis of instruction.

The majority of the inhabitants of these islands do not understand Spanish, and it would be a waste of opportunity to teach them this language with a view to making it the basis of their future instruction. The supply of Spanish text-books is rapidly being exhausted, and very soon English arithmetics, histories, and geographies will be

ordered and used. It may be that in some cases Spanish will have to be employed at first, but there seems no good reason why it should continue to be the basis of instruction. While the Spanish were the dominant element in the population they made a special effort in many places to prevent the common people from learning their language, and the eagerness which is now everywhere manifest to learn English shows a popular appreciation of the efforts now being put forth to enable them to become familiar with what is to be the predominant language of the government.

COMPULSORY EDUCATION.

Primary instruction must ultimately be compulsory for all children between the ages of 6 and 12 years. Efforts will be made to secure a compliance with this plan, but it will be difficult to carry it out at first, particularly in smaller towns and districts with a sparse population.

NIGHT SCHOOLS.

On September 3, 1900, upon the initiative of the Commission, a night school for teaching English to adults was opened in Sampaloc school for three nights in the week from 7.30 to 9. This school has proven so successful that it has led to the establishment of two others, one in the building of the Girls' Municipal School (within the walled city), and, more recently, one in Binondo. The total enrollment of these three schools is now over 1,900, and 25 teachers are employed in giving instruction. So far nothing has been attempted but the teaching of English, but the time seems to be approaching when other subjects can be introduced, such as arithmetic, commercial accounts, business forms and methods, geography, and even typewriting and stenography; and an effort made to fit students in a practical way for the examinations for clerkships under the civil-service board, and for actual business positions. A supplementary reading book on American history has been ordered for immediate use in the night schools. A series of lectures, illustrated with stereopticon, on countries and cities of the world is also projected. The effort is being made to perfect a system of registration, to compel regular attendance, and by careful grading and personal attention meet the actual needs of each pupil and make this exceedingly promising work permanent in its organization and its hold upon the attendants.

There are classes for women at the Sampaloc and Binondo night schools, taught by women, but meeting the same evenings of the week as the classes for men. At the Victoria night school, as it has been named, it has been found advisable to conduct the classes for women on alternate nights of the week as a separate institution. This has been done with a woman principal and two assistants in charge of the

instruction. Some personal statistics relating to the enrollment of pupils at the Sampaloc night school may be suggestive of the degree to which these schools are capable of reaching various classes of Filipinos representing a generation not reached by ordinary educational efforts. The enrollment of pupils has been found to include clerks, merchants, newspaper reporters, bookbinders, salesmen, teachers, police officers, firemen, secretaries, mechanics, cigar makers, janitors, physicians, laborers, barbers, and a variety of other professions and occupations. The age of the attendants varies from 12 to 60 years, but the average is not far from 23.

SUPPORT OF SCHOOLS.

The main support of primary schools will, when the government is thoroughly organized, fall upon the municipalities. In the beginning it will not be possible for certain pueblos to furnish this support, and appropriations will have to be made from the insular treasury. For some time text-books, stationery, and teachers of English will have to be furnished to all municipalities. In case of financial aid, it will be rendered in proportion to the number of pupils and their average attendance. The ultimate aim, however, will be to order the system so that each pueblo will support its own school.

NORMAL SCHOOLS.

In Manila, at the beginning of the next school year, a normal school, founded on the American plan, will be opened. Connected with this institution there will be a primary school serving as a practice school for the more advanced normal students. In its material equipment and in its methods it will furnish a model. It will be possible for students to enter this normal school from the provinces as well as from Manila. It may be necessary to arrange for a preparatory department where instruction in English may be given. Later, other normal schools in three or four other centers of population will be needed.

NAUTICAL SCHOOL.

There exists at present in Manila a flourishing nautical school. This school was opened on December 15, 1899. The course of instruction extends over three years. For the first year it includes arithmetic, algebra, English, geography, and drawing; for the second year it includes geometry, plane trigonometry, geography, mechanics, English, and drawing. During the third year the pupils are instructed in spherical trigonometry, nautical astronomy, navigation, theoretical seamanship, and hydrographical drawing. Lieut. Commander V. L. Cottman, U. S. N., was appointed first superintendent. He was assisted by 3 instructors. Lieut. George F. Cooper relieved Lieutenant-

Commander Cottman on December 25, 1899. Twenty-two pupils were present at the opening of the school. Some of them had been pupils in the Spanish nautical school. In the examination held to determine their classification 3 of them were qualified to enter upon the work of the second year; the other 19 were assigned to the work of the first year. During the vacation, covering the months of April and May, 5 of the pupils were taken into the service of the *Compañía Marítima*, and thus acquired valuable experience in their proposed profession. At the beginning of the new term, in June, the number of pupils had increased to such an extent as to require the service of 7 instructors instead of the 3 previously employed. The methods of instruction, the system of marks and records, and the discipline of the school are based upon those of the United States Naval Academy. It was difficult in the beginning to maintain a very high standard of work by pupils of whom hitherto little discipline or effort had been required. At first instruction was given in Spanish, but owing to the inferior quality of Spanish text-books it has become desirable to substitute as early as possible the English for the Spanish language. The increasing need of skillful seamen to conduct the growing interisland trade makes it important that this school should not only be maintained, but enlarged.

MILITARY SCHOOL.

In view of the fact that it will be necessary in the future to employ a considerable number of Filipinos in the military service in these islands, it is desirable that there should be established here a military school.

AGRICULTURAL SCHOOL.

That the Filipinos may be in a position to develop the vast agricultural resources of these islands, it is desirable to establish here schools of agriculture. It will be necessary to send to the agricultural colleges of America for instructors. These must be men who will study the agricultural conditions here existing, and teach practically the best means of cultivating and improving the products peculiar to this archipelago.

TRADE SCHOOLS.

Besides the schools of agriculture, there will be needed trade schools in which blacksmithing, tinsmithing, carpentering, cabinetmaking, painting, and other trades will be taught. In these establishments it will be desirable to have practical work done, and at the same time furnish opportunity to students to support themselves by their work. Small contracts may be taken from the outside and done under competent supervision. Americans will be needed as heads of these schools.

DESTITUTE AND CRIMINAL CHILDREN.

Eventually orphanages, reform schools, schools for the deaf and dumb and blind, supported by public funds, will have to be established.

The following points in recapitulation may be emphasized:

1. The system of instruction in the Philippine Islands must be, at least in the beginning, largely centralized. There will be a general superintendent of education, as many assistant superintendents as there are departments.

2. There will be needed a system of local advisory boards.

3. The text-books, charts, maps, globes, stationery, and English teachers will have to be furnished to municipalities by the insular government.

4. As far as possible school buildings will have to be constructed and native teachers supported by local taxation.

5. All schools supported by public funds must be free and non-sectarian.

6. Emphasis must be placed upon the elementary education of the masses.

7. The education furnished must be of a practical, utilitarian character. What is attempted in the way of instruction must be done thoroughly, and the aim must be in particular to see that children acquire in school skill in using their hands and their heads in a way to earn a livelihood.

8. Normal, agricultural, commercial, and trade schools will early receive attention.

9. Native teachers must be paid more than under Spanish rule, and in every way possible teaching be made a desirable calling. Native teachers in office will be taught a broader and more thorough conception of education. To this end courses of instruction for teachers will be provided. Teachers will be examined, certified, and classified.

10. The present educational system will be modernized and secularized and adapted to the needs of a people who have hitherto been deprived of the opportunities of a rational education.

WM. H. TAFT.

DEAN C. WORCESTER.

LUKE E. WRIGHT.

HENRY C. IDE.

BERNARD MOSES.

EXHIBITS.

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EXHIBITS.

EXHIBIT A.—*Announcement of the Commission to the public press on arrival at Manila.*

We have full instructions, and extensive powers are given us. We shall not fully exercise these powers until we shall have ample time to acquire a sufficient knowledge of the situation to proceed to enact legislative changes and reforms preliminary to the establishment of a stable civil government. The military governor, General MacArthur, until we assume our full authority, will continue to perform the duties and exercise the general powers heretofore discharged and wielded by General Otis; and even after we take full, active part in the government he will continue to be its executive head, until on our recommendation it shall seem to the President that the time has arrived for the appointment of a civil executive and the making of the military forces of the United States merely auxiliary to the carrying on of the civil government, and available only in cases of emergency for the suppression of lawless violence too formidable to be overcome by the regularly organized local police.

We are aware that there are several issues of deep interest to the people of these islands upon which it will probably be our duty to take some action. Part of these will involve merely judicial investigation and decision of purely legal rights, while the remainder will require the careful exercise of political power to reach a just and equitable result. Upon these issues we can not be expected at this time to say anything in advance of our final and deliberate conclusions.

Representing the sovereignty of the United States in these islands, which it is the purpose of our Government to maintain, we are here to do justice to the Philippine people, and to secure to them the best government in our power, and such a measure of popular control as will be consistent with stability and the security of law, order, and property.

We are civil officers. We are men of peace. The field of our work must, of course, be confined to regions in which the armed enemy has ceased operations. We can not deal with men in arms. They are to be dealt with by the United States Army and the general commanding. When those now in arms shall have laid them down, relying, as they certainly may, on the justice, generosity, and clemency of the United States, we shall give to them as full a hearing upon the policy to be pursued and the reforms to be begun as to anyone having an interest in the matter.

This is not a manifesto or proclamation, but, anticipating that we might be called upon by the press and others entitled to know, we have deemed it best to say this much. I may add that we mean to inaugurate as comprehensive a school system throughout the islands as circumstances will permit, and we have already invited Mr. Fred W. Atkinson, of Springfield, Mass., a gentleman of high professional standing as an educator, to come to the islands to become the general

superintendent of education in the Philippines. We hope that he will reach here by the 1st of August. He is highly recommended to us by the leading educators of the country.

The military government, through the quartermaster's department, has been good enough to assign to each of the commissioners a house, and we have come prepared to make Manila our homes for one, two, or three years, as the case may be, until the task of establishing a permanent civil government shall have been well begun. We invite suggestions from the Filipinos and all others who have a sympathy with our purpose as to needed changes in legislation and organization of the various departments of the government, assuring them that we shall give to their suggestions careful consideration and adopt those adapted to the carrying out of our purpose.

EXHIBIT B.—*Announcement.*

On this the 1st day of September, 1900, the United States Philippine Commission begins the exercise of certain governmental powers in the Philippine Islands, which are described in instructions issued by the President of the United States to the Secretary of War. The powers and duties now assumed are set forth in said instructions in the words following:

Beginning with the first day of September, 1900, the authority to exercise, subject to my approval, through the Secretary of War, that part of the power of government in the Philippine Islands, which is of a legislative nature, is to be transferred from the military governor of the islands to this Commission, to be thereafter exercised by them in the place and stead of the military governor, under such rules and regulations as you (i. e., the Secretary of War) shall prescribe, until the establishment of the civil central government for the islands contemplated in the last foregoing paragraph, or until Congress shall otherwise provide. Exercise of this legislative authority will include the making of rules and orders, having the effect of law, for the raising of revenue by taxes, customs duties, and imposts; the appropriation and expenditure of public funds of the islands; the establishment of an educational system throughout the islands; the establishment of a system to secure an efficient civil service; the organization and establishment of courts; the organization and establishment of municipal and departmental governments, and all other matters of a civil nature for which the military governor is now competent to provide by rules or orders of a legislative character.

The Commission will also have power, during the same period, to appoint to office such officers under the judicial, educational, and civil-service systems, and in the municipal and departmental governments, as shall be provided for. Until the complete transfer of control the military governor will remain the chief executive head of the government of the islands, and will exercise the executive authority now possessed by him and not herein expressly assigned to the Commission, subject, however, to the rules and orders enacted by the Commission in the exercise of the legislative powers conferred upon them. In the meantime the municipal and departmental governments will continue to report to the military governor and be subject to his administrative supervision and control, under your (i. e., the Secretary of War) direction, but that supervision and control will be confined within the narrowest limits consistent with the requirement that the powers of government in the municipalities and departments shall be honest and effectively exercised, and that law and order and individual freedom shall be maintained.

All legislative rules and orders, establishments of government, and appointments to office by the Commission will take effect immediately, or at such times as they shall designate, subject to your (i. e., the Secretary of War) approval and action upon the coming in of the Commission's reports, which are to be made from time to time as their action is taken. Wherever civil governments are constituted under the direction of the Commission, such military posts, garrisons, and forces will be continued for the suppression of insurrection and brigandage and the maintenance of law and order as the military commander shall deem requisite, and the military forces shall be at all times subject under his orders to the call of the civil authorities for the maintenance of law and order and the enforcement of their authority.

The policy of the Commission will be to give the fullest opportunity for public consideration and criticism of proposed measures of legislation affecting the people of these islands. Printed copies of introduced bills will be on file at the office of the Secretary of the Commission immediately after their introduction and may be had upon application.

The Commission will hold public meetings at its offices at 10 o'clock a. m. on Wednesdays and Fridays of each week for the consideration of proposed bills, and at such meetings citizens of the Philippines and others interested will be given opportunity to make suggestions and criticisms in respect to the proposed measures if, upon the day previous to the meeting, application be made to the president for assignment of time.

WM. H. TAFT.

DEAN C. WORCESTER.

LUKE E. WRIGHT.

HENRY C. IDE.

BERNARD MOSES.

A. W. FERGUSON, *Secretary.*

EXHIBIT C.

Memorandum showing the number of officers and enlisted men, American civilians, natives, Spaniards, and Chinese on duty in the Philippine civil service.

Under the—	Officers (Army and Navy).	American citizens.	Natives, Spaniards, or Chinese.	Enlisted men.
Military governor.....	4	6	.....	33
Philippine Commission.....	.....	21	10	.....
Treasurer.....	1	2	2	1
Auditor.....	2	18	.....	.....
Collector of customs.....	a 83	115	199	b 95
Collector of internal revenue.....	c 82	21	164	20
Director of posts.....	.....	67	59	1
Civil-service board.....	.....	3	3	.....
Bureau of forestry.....	1	3	43	1
Bureau of mines.....	1	2	4	1
Bureau of statistics.....	.....	1	.....	.....
Captain of the port.....	d 1	7	283	2
Provost-marshal-general.....	2	.....	.....	.....
Municipal records.....	1	7	78	2
Quartermaster.....	.....	10	e 4	.....
Secret service.....	1	4	11	3
Receipts and disbursements.....	1	2	4	2
Public instruction.....	f 1	51	147	1
Wardens of penitentiaries.....	3	.....	70	2
Police department.....	1	.....	788	1
Board of health.....	7	9	196	6
Licenses and municipal revenue.....	1	7	78	5
Inspection.....	1	.....	1	3
Public works.....	1	11	12	.....
Water department.....	.....	2	87	.....
Streets, parks, fire, and sanitation.....	3	14	g 1, 117	3
Illumination.....	1	.....	.....	1
Supreme and inferior courts.....	2	3	184	.....
Total.....	A 201	386	3, 546	183
Percentage of each class of the entire service.....	4. 66	8. 94	82. 16	4. 24

Grand total of employees..... 4, 816

aOf this number 41 are inspectors of customs, who also act as collectors of internal revenue.

bThese men are detailed for duty as checkers upon foreign vessels and as inspectors aboard ships. Their places can be filled by native clerks when they are relieved from this duty.

cThis number does not include inspectors of customs who are also collectors of internal revenue.

dA naval officer.

eIn addition \$1, 680 per annum is appropriated for janitors—number not specified.

fThis is a naval officer who acts as superintendent of the Nautical School.

gThese are mostly unskilled laborers.

AThese officers are, in nearly all cases, heads or assistant heads of bureaus, collectors or inspectors of customs, or collectors of internal revenue.

An approximate statement showing the per cent of Americans and of natives assigned to different classes of work in the Philippine civil service.

	Americans. ^a	Natives. ^b
Administrative officers, including heads and assistant heads of departments, judges, justices, attorney-general, etc.	79.48	20.52
Supervisory positions, including chief clerks of higher grades, superintendents, assistant superintendents, etc.	96.37	3.63
Clerical positions, including chief clerks of lower grades, cashiers, clerks, stenographers and typewriters, bookkeepers, interpreters and translators, examiners, agents, letter carriers, etc.	33.66	66.34
Professional or technical positions, including school teachers, engineers, physicians, etc.	11.19	88.81
Skilled laborers, including blacksmiths, carpenters, etc.		100
Unskilled laborers, including capataces, messengers, watchmen, porters, drivers, janitors, teamsters, cooks, coal passers, unskilled laborers, etc.	.64	99.46
Miscellaneous positions, including secret-service agents, policemen, firemen, collectors, and inspectors of different kinds, minister, etc.	1.88	98.12
Per cent of entire service (4,316 officers and employees)	13	82

^a These include army and navy officers, civilians, and enlisted men.

^b These include Spaniards and Chinese.

EXHIBIT D.—*Report of the committee appointed to investigate the suitability of the township of Baguio, province of Benguet, for a health resort.*

MANILA, P. I., November 20, 1900.

Hon. WILLIAM H. TAFT,

President of the United States Philippine Commission.

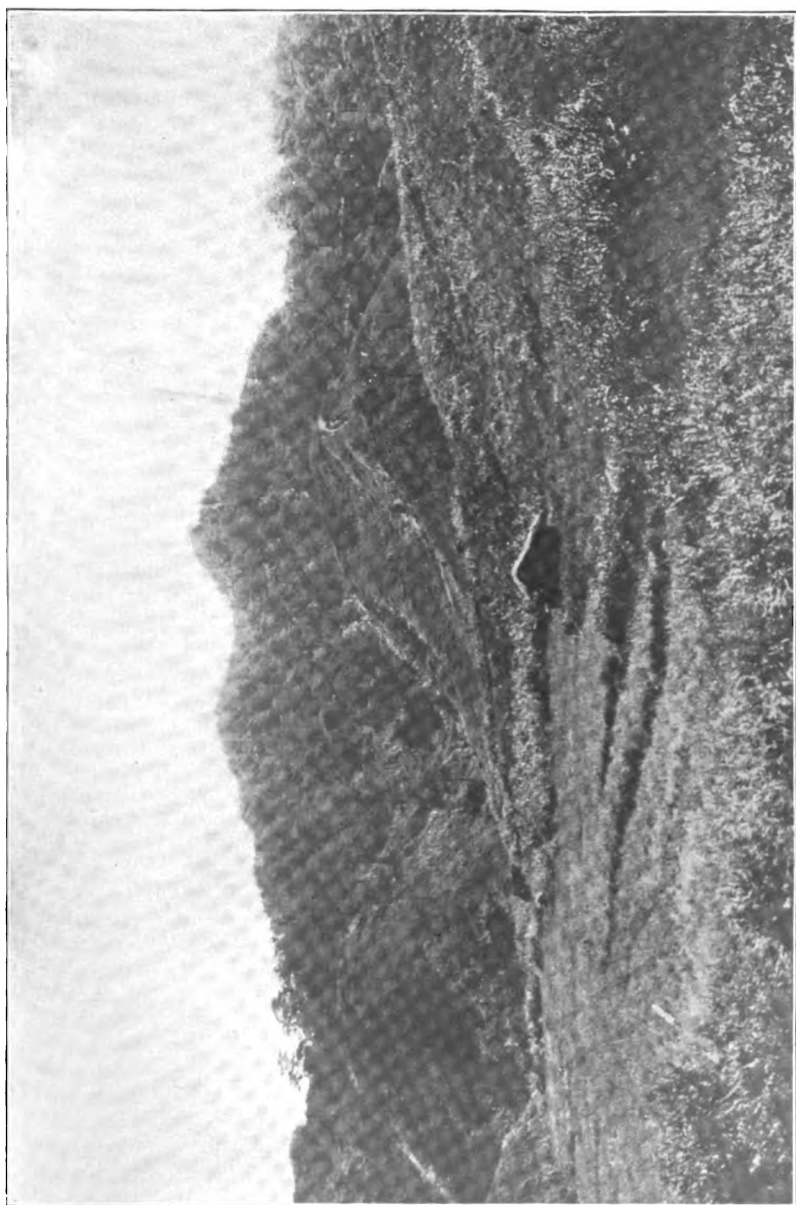
SIR: The committee appointed by the Commission to proceed to the province of Benguet and to investigate personally the fitness of that region to serve as a health resort for these islands begs to submit the following report:

We ascertained that the best route was by water to San Fernando de la Union and by carriage road and trail from that point to Baguio, by way of Bauang, Naguilian, and Trinidad.

A party was made up, consisting of the undersigned commissioners; Mr. H. L. Higgins, the engineer who built the Manila and Dagupan Railway and is now its general manager; Maj. Louis M. Maus, chief medical inspector of the Eighth Army Corps, representing the army medical service; Dr. Frank S. Bourns, late major and chief surgeon, U. S. V., late professor of pathology and bacteriology in the Southern Medical College, Atlanta, Ga., and for more than a year chief health officer of Manila, and Señor Benito Razón, a native meteorological observer, recommended to us by the director of the Manila observatory. Señor Razón took with him a full set of meteorological instruments. By direction of Admiral Kempff, transportation was furnished the party on the small gunboat *General Alava*. We sailed on the morning of July 30, reaching San Fernando twenty-four hours later.

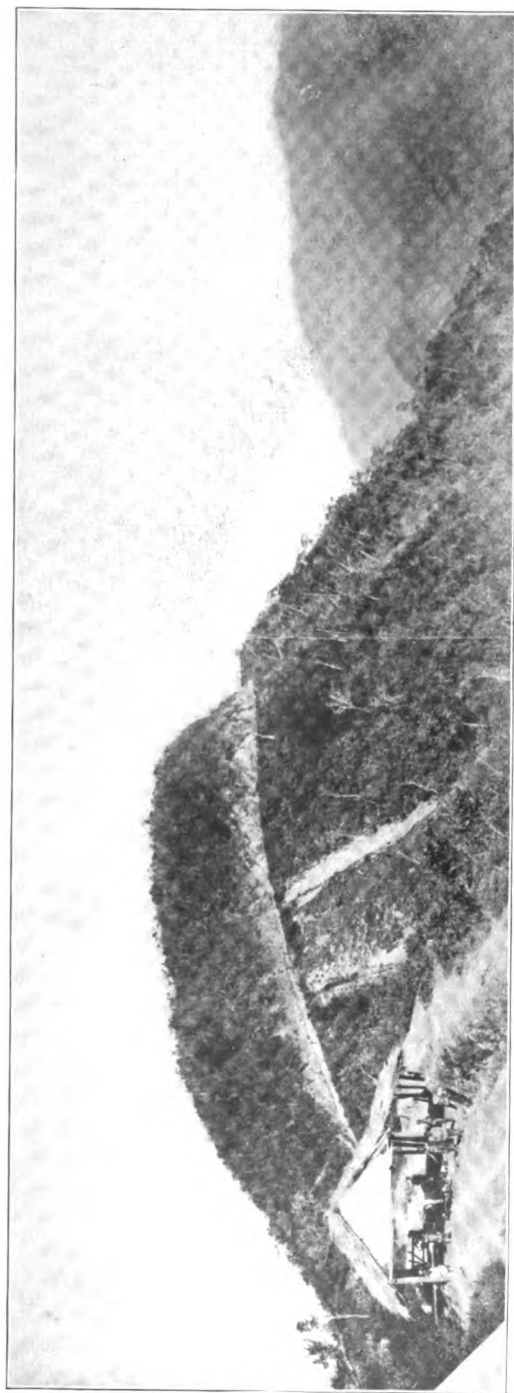
On August 1 we left San Fernando at 9 a. m. with an escort of 25 men from the Third Cavalry. The trip to Naguilian, a distance of some 12 miles, was made in an army ambulance. We found a passable road as far as the town of Bauang, and from that point on followed the bed of the Bauang River to Naguilian, which place we reached about 1 p. m. A tremendous downpour of rain, which began shortly before noon, made it doubtful for a time whether the river would be fordable the following morning, but the water fell considerably during the night.

We left Naguilian on horseback at 7.30 the following day, sending our baggage by mule train. The trail at first ran along the Bauang

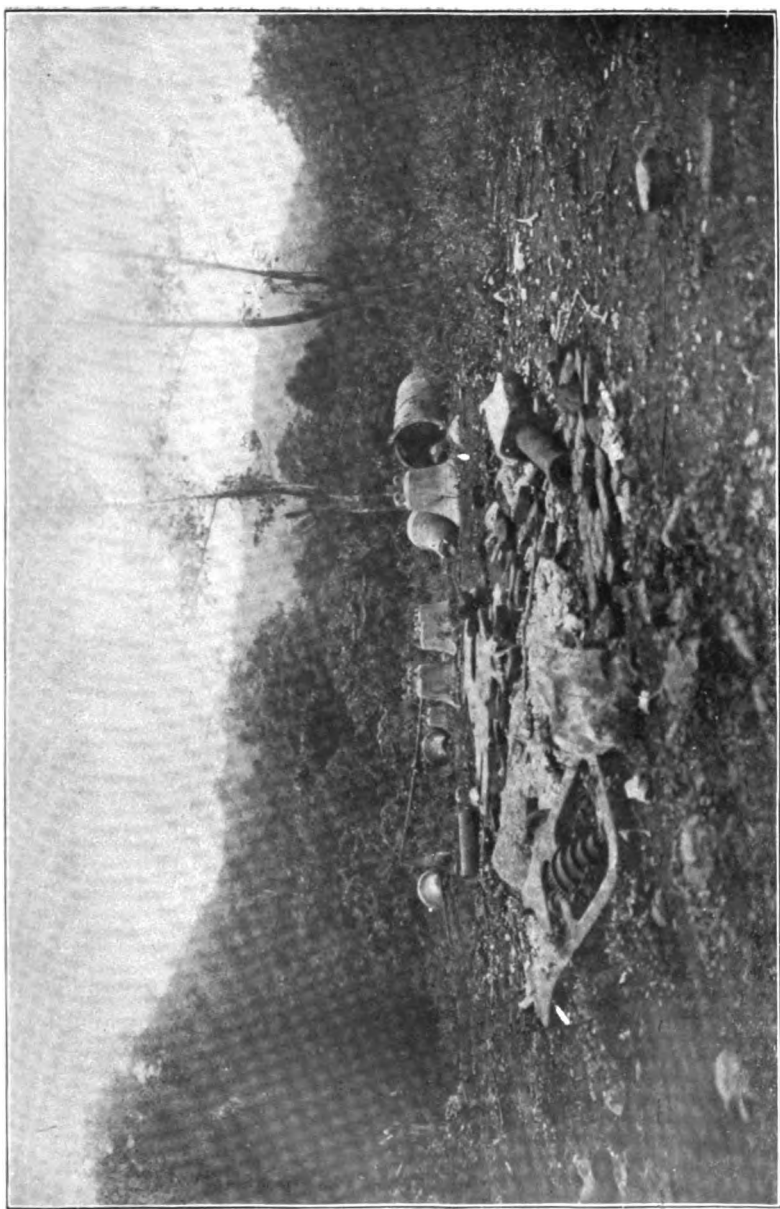


VIEW ON TRAIL BETWEEN TRINIDAD AND BAGUIO, SHOWING GENERAL CHARACTER OF COUNTRY.

(Photograph by Dean C. Worcester.)



VIEW ON TRAIL BETWEEN SABLAN AND TRINIDAD.
(Photograph by Otto Scheerer.)



ABANDONED INSURGENT GUN FOUNDRY AT SABLAN, BENGUET.
(Photograph by Dean C. Worcester.)

River, which we forded some twelve times before we reached the foothills, where we left it for good. Many of the fords were made with considerable inconvenience, on account of the high water from the rains of the previous day.

From the time the foothills were reached the trail proved difficult. It had evidently at one time been put into very good shape, but we found it considerably out of repair. It was in places tortuous, and the soil was a slippery clay where wet rocks were not exposed. The grade was often very sharp, making it necessary to lead horses and walk much of the way.

After reaching the 3,000-foot level the trail ran downward for some distance to the site of the former town of Sablan, which has been almost completely destroyed by fire during the insurrection.

It was the plan of General Luna to utilize the province of Benguet as a final refuge for his army in case of defeat, on account of the ease with which the passes leading to it could be defended. As a preliminary step in the carrying out of this plan, an attempt was made to establish a cannon foundry at Sablan, and we found there parts of a large lathe for turning metal, and of an upright furnace.

There was also a collection of church bells, stolen from the towns in the plains below, which were to have been recast into field guns.

From Sablan the trail bore steadily upward for some time, at first running along the mountain side, then following narrow ridges and winding about sharp peaks. We crossed numerous rickety bridges, made of poles and covered with earth, in places where the breaking of a stringer would have resulted in a fall of hundreds of feet down the mountain side.

The air now became perceptibly cooler. A little later we found raspberries growing by the side of the trail, and soon after sighted our first pine tree. In the next hour we witnessed a most wonderful change in the vegetation. The dense undergrowth and the hard-wood trees characteristic of the tropics suddenly gave way to splendid pine forests, free from underbrush, the ground beneath the trees being covered with short green grass. The air grew rapidly cooler, and we could have imagined ourselves in the pine woods of northern New England during late spring or early summer.

After riding for some miles through the pine belt, we came suddenly out on the edge of the valley in which Trinidad, the former capital of the province, is situated. This valley, which is perhaps a mile and a half in diameter, has every appearance of being an old volcanic crater. Its bottom is almost perfectly flat. It is shut in on every side by steep hills, broken only at the points where the river Balili enters and leaves it. At the time of our arrival it was green with growing crops, dotted over with Igorrote houses, and presented a panorama of striking beauty.

A half hour later we had reached Trinidad, which is in reality a small hamlet. We found it garrisoned by two companies of the Forty-eighth Colored Infantry, and were made welcome by the officer in command.

We arrived at 6.30, having made the 25 miles from Naguilian in eleven hours. The temperature was delightful, and we were given cool spring water to drink, a novel experience in the Philippines.

The situation of Trinidad is picturesque, but somewhat objectionable, because clouds drift up the canyon down which the Balili River flows, enter the cup-shaped valley and hang about the town, so that there is

a good deal of fog. In spite of this the troops were in splendid health. The surgeon in charge told us that he had only three men on the sick list, which he said was about the usual number. Remembering that colored troops do not always take the best of care of themselves, we consider this fact highly significant.

When we arose next morning our breaths were distinctly visible. This was the coolest morning during our stay in the province, but our instruments were packed up and we could not determine the exact temperature.

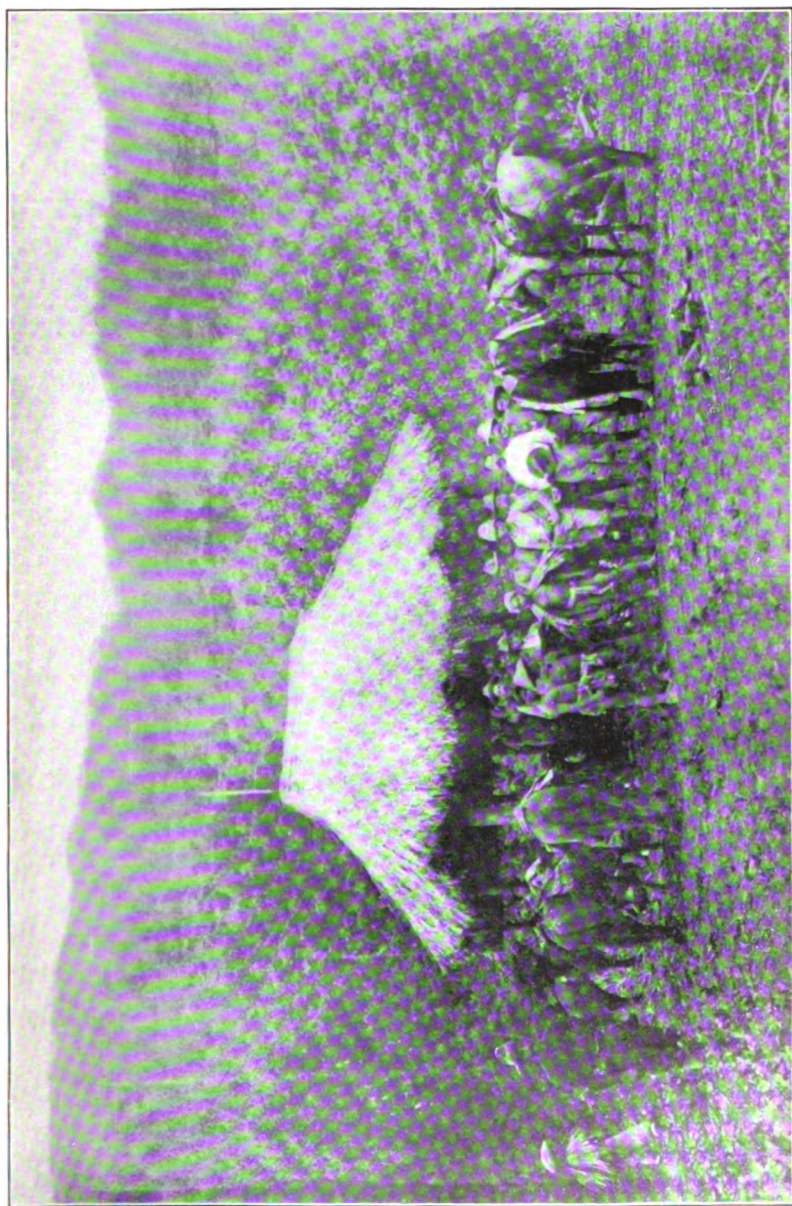
We had accepted the invitation of Mr. Otto Scheerer, a gentleman who had resided for four years at Baguio, to make our headquarters at his place during our stay. He appeared on the scene before we had finished breakfast, and immediately thereafter we set out for Baguio, leaving all but 10 men of our escort behind, as the province was perfectly peaceable. We crossed the Trinidad Valley, leaving it by the canyon through which the river enters and following a gently rising trail to the little plateau on which Baguio is situated. This plateau has an elevation of 4,700 feet above sea level and is about 500 feet higher than Trinidad. The accompanying photograph conveys a better idea of it than would any description. The point selected by the Spanish commission for a sanitarium is indicated by a cross.

We found perhaps three-fourths of the country grown up to short grass, through which one could readily ride without any necessity for a path. The remaining one-fourth is covered with pine trees standing well apart from each other, so that one can ride through the forest with perfect ease wherever the slopes are not too steep. There is no underbrush of any sort in the vicinity of Baguio, but magnificent tree ferns are to be seen in the vicinity of the springs and small streams. We reached Mr. Scheerer's house at high noon, having ridden through the hottest part of the day without the slightest discomfort.

We had our headquarters at Baguio for four days, making expeditions on horseback and on foot to various points of interest in the province. We found everywhere the same cool, bracing air and the same beautiful pine forests. Although our visit was made at the height of the rainy season, there were only four or five hours of rain during our stay. The showers occurred late in the afternoon. There was very little fog. Neither mosquitoes nor white ants are found at Baguio.

The question of water supply seemed to us especially important, as we were practically on the flat top of a mountain. The little plateau on which Baguio is situated is surrounded by eight low hills. In the valleys between these hills we found, in every instance, springs, which were affording an abundant supply of pure and cool water at the time of our visit. Many of these, however, fail during the dry season, according to Mr. Scheerer. That gentleman, however, guided us to another spring, which bursts from the hillside about 80 meters below the level of his house, sending forth a fine stream of clear, cool water.

Ensign Kalbfuss, of the Navy, who had accompanied us from San Fernando, carefully measured the flow of this spring, and stated that it was then running between 900,000 and 1,000,000 gallons a day, and Mr. Scheerer assures us that its flow is practically uniform throughout the year. As the water comes directly from the mountain side, it is uncontaminated by surface drainage. On the top of the hill above the



OUR PARTY AT SABLAN. THE BUILDING SHOWN IS THE ONLY ONE AT PRESENT STANDING.

(Photograph by Dean C. Worcester.)



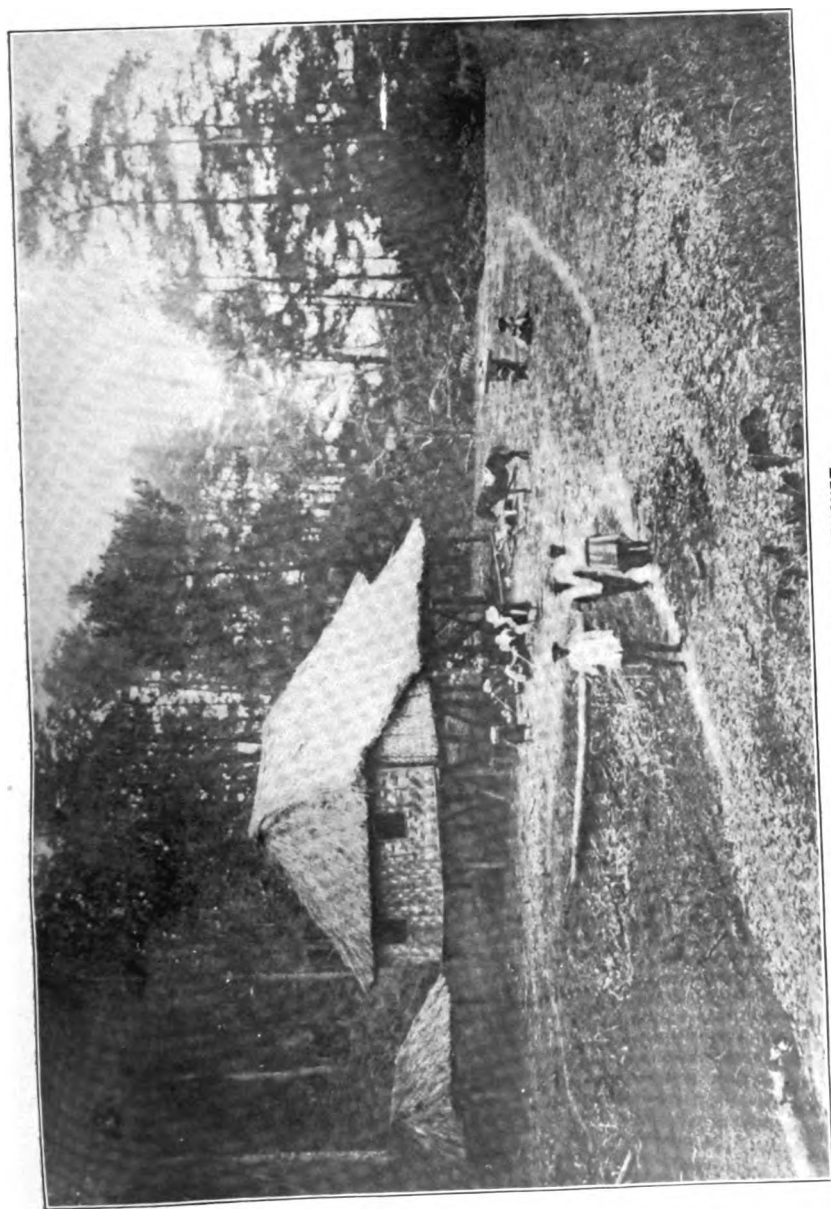
SOME OF OUR IGORROTE CARRIERS PREPARING THEIR DINNER AT SABLAN.

(Photograph by Dean C. Worcester.)

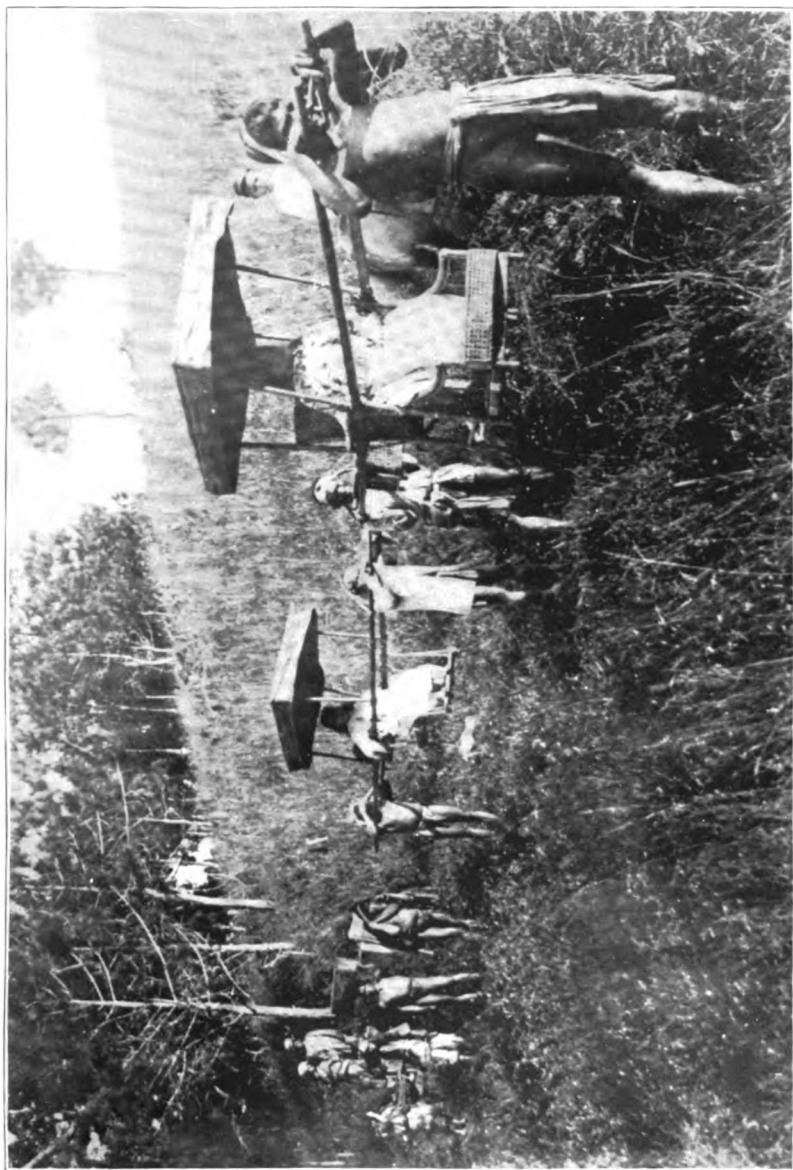


VIEW SHOWING CHARACTER OF VEGETATION JUST BELOW THE PINE BELT, ON THE TRAIL BETWEEN SABLAN AND TRINIDAD.

(Photograph by Dean C. Worcester.)



IN THE PINE BELT, BENGUET.
(Photograph by Otto Scheerer.)



IGORROTE CARRIERS IN BENGUET.
(Photograph by Otto Scheerer.)



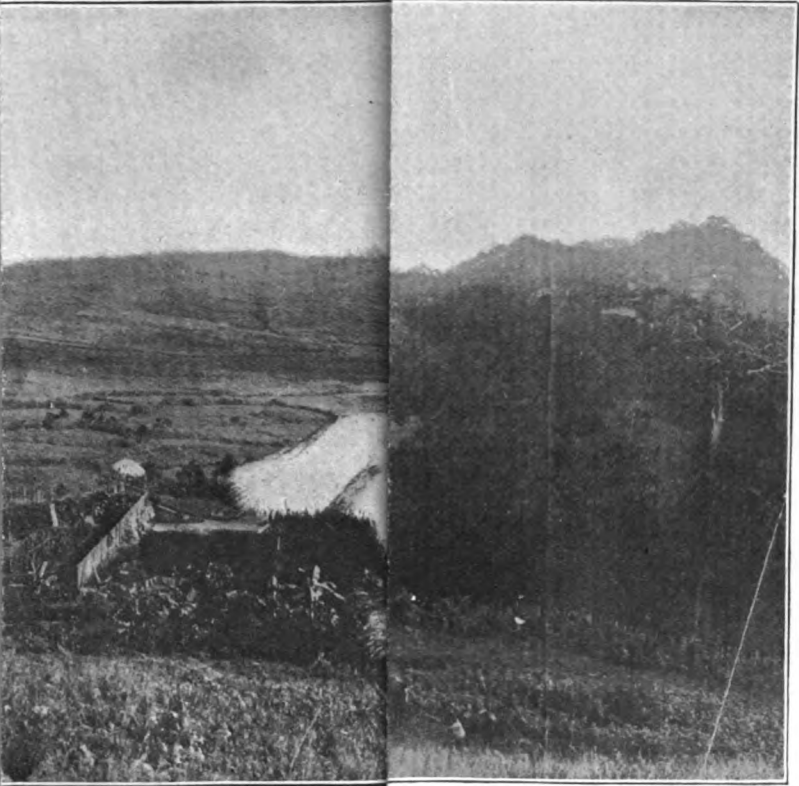
VIEW ON TRAIL NEAR BAGUIO, SHOWING GENERAL CHARACTER OF THE COUNTRY, IGORROTE HOUSES, AND CULTIVATED FIELDS FENCED BY THROWING UP EARTH; BRANCH OF BALILI RIVER IN FOREGROUND.

(Photograph by Dean C. Worcester.)



VIEW NEAR BAGUIO, BENGUET, SHOWING THE GENERAL CHARACTER OF THE COUNTRY.
(Photograph by Otto Scheerer.)

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THE SPANISH COMMISSION FOR A SANITARIUM
(See C. Worcester.)

spring there is a natural basin, which needs only a retaining wall at its lower end and a little hollowing out to make a reservoir, from which water could be distributed to any point on the plateau.

In Mr. Scheerer's garden we saw coffee, oranges, lemons, cacao, and bananas growing beside fine Irish potatoes, beans, pease, cucumbers, raspberries, and other products of the temperate zone. Wood strawberries grow wild in Benguet, but were not in fruit at the time of our visit.

We had unexpected demonstrations of the virtue of the climate during our stay. Major Maus came down with a severe attack of "dengue" fever on the march from Naguilian to Trinidad, and grew so ill that he was unable to sit his horse. He had a high temperature throughout the night, and the next morning we were forced to leave him behind. Twenty-four hours later he overtook us, feeling fairly well again. He had no further illness. Soon after reaching Baguio, Mr. Worcester also came down with an attack of "dengue," contracted in the lowlands, from which he recovered in thirty-six hours. In Manila this fever frequently lasts for a week or ten days.

During our stay at Baguio the thermometer at Manila reached the highest point touched since the arrival of the Commission, namely, 95.3° F. On the same day our thermometer at Baguio indicated the highest temperature as yet recorded at that place, namely, 76.8°. During the nights it fell to from 64° to 61°, and we found two blankets comfortable.

It was with great regret that we finally turned our backs on the cool highlands and returned to San Fernando. On our arrival there Captain Fox of the gunboat commiserated us on account of the constant rain in the mountains. Inquiry brought out the fact that there had been heavy and continuous rains on the slopes below us, from which we had almost entirely escaped in the highlands.

We left our meteorological observer at Baguio, and intend to keep him there until the end of next May. The data which he will then have secured, together with those already obtained by the Spanish commission, will give a meteorological record for every month of the year. We have thus far received from him reports covering the period from noon on August 3 to 6 a. m. on November 1.

The observations cover temperature, relative humidity, atmospheric pressure, clouds and fog, rainfall, and, for the last month, direction and frequency of prevailing winds. There follow the results thus far obtained, stated in tabulated form, together with tables giving a comparison between some of the more important data and similar data for the same period at Manila.

Temperature at Baguio, Benguet, during the month of August, 1900.

Day.	A. M.					P. M.					Daily variation.
	12.	4.	6.	8.	10.	12.	2.	4.	6.	8.	
3.	o	o	o	o	o	72.7	o	71.2	70.2	o	o
4.	o	o	o	o	o	73.0	o	68.9	68.5	68.2	o
5.	o	65.9	65.1	68.9	72.8	75.6	75.2	71.6	70.7	68.9	9.7
6.	67.7	64.2	65.3	68.7	72.0	75.4	76.8	69.1	66.6	64.8	12.6
7.	64.6	61.3	61.3	70.2	71.6	72.3	72.7	70.5	64.8	65.1	11.4
8.	64.0	63.0	o	64.9	70.0	71.6	o	70.7	o	65.8	8.6
9.	65.8	60.0	o	68.0	70.9	72.0	o	67.3	o	64.4	12.0
10.	68.3	63.0	o	67.5	70.7	68.9	o	66.6	o	68.2	5.9
11.	65.2	64.0	o	66.4	72.0	71.6	o	66.9	o	66.4	8.0
12.	64.2	63.3	o	64.8	66.6	67.1	o	68.2	o	66.7	4.9
13.	65.6	65.8	o	67.3	69.3	70.5	o	67.7	o	66.6	4.7
14.	65.5	63.9	o	65.8	67.6	69.1	o	69.6	o	64.8	5.7
15.	64.9	63.0	61.9	63.3	65.5	66.9	66.9	66.9	64.8	65.8	3.6
16.	64.8	64.0	64.4	64.8	65.2	67.6	67.3	66.9	65.8	65.6	3.6
17.	65.8	65.1	64.8	65.0	65.8	66.2	65.5	65.1	64.8	65.3	1.4
18.	64.8	64.9	65.1	65.3	64.6	65.1	65.3	65.7	65.3	64.4	2.7
19.	64.8	65.5	65.1	65.5	66.2	67.5	68.4	66.2	66.2	65.8	9
20.	65.8	65.3	65.7	66.2	66.2	65.3	65.7	65.8	65.5	66.7	1.7
21.	65.8	65.8	66.0	66.0	66.2	67.5	66.6	66.9	66.2	66.6	1.4
22.	65.8	65.8	65.5	65.8	64.5	65.1	65.5	65.1	64.4	64.4	1.1
23.	64.1	64.8	64.8	64.8	65.1	65.8	65.8	64.4	63.0	62.6	3.2
24.	63.5	62.6	63.0	63.9	65.1	65.7	63.5	63.5	63.3	64.0	3.1
25.	63.3	63.0	63.0	64.4	68.9	68.4	66.7	64.4	64.0	64.4	5.4
26.	63.5	63.9	63.0	63.0	63.9	64.0	64.9	63.0	63.0	62.6	2.3
27.	62.8	63.0	63.0	64.0	63.5	65.1	66.2	64.8	62.2	61.7	4.5
28.	59.0	59.4	60.4	61.3	67.3	70.5	71.1	70.7	67.6	66.2	12.1
29.	64.9	64.0	63.3	65.1	66.9	68.7	67.4	65.8	64.4	64.4	5.4
30.	64.0	62.6	62.1	65.1	69.4	70.9	67.1	64.8	64.0	64.0	8.8
31.	64.0	62.6	62.1	65.1	69.4	70.9	67.1	64.8	64.0	64.0	8.8
Mean.....	64.6	63.8	63.0	65.8	67.8	68.9	67.4	67.0	65.5	65.3	5.45

Mean temperature for month, 65.9°.

Temperature at Baguio, Benguet, during the month of September, 1900.

Day.	A. M.					P. M.					Daily variation.
	12.	4.	6.	8.	10.	12.	2.	4.	6.	8.	
1.	63.0	62.1	61.9	65.8	70.0	71.2	72.0	70.5	68.4	67.1	10.1
2.	63.0	62.2	63.5	68.7	73.4	75.9	73.2	72.3	69.1	68.9	13.7
3.	65.3	63.5	62.2	66.2	71.6	74.8	74.8	69.4	65.5	65.8	12.6
4.	65.8	64.8	65.1	68.9	73.8	76.6	72.5	70.2	68.7	68.0	11.8
5.	65.5	62.6	62.6	70.9	73.4	72.5	72.0	70.2	66.7	66.2	10.8
6.	64.0	63.5	64.0	66.0	67.6	70.2	68.4	65.1	64.0	64.4	6.7
7.	63.3	63.0	63.3	65.1	68.0	70.5	67.8	69.1	67.6	67.6	7.5
8.	66.8	65.8	65.8	69.4	72.3	72.5	71.2	70.2	67.5	65.8	6.7
9.	63.9	64.0	64.0	64.0	64.8	64.4	64.0	64.0	64.0	64.0	.9
10.	64.4	64.4	63.9	64.8	67.6	69.6	67.1	66.7	65.8	65.6	5.7
11.	64.8	64.0	63.3	68.4	71.2	71.4	69.8	68.9	67.3	66.6	8.1
12.	65.3	62.6	63.7	67.6	69.3	70.7	68.7	68.7	68.2	66.2	8.1
13.	66.7	64.4	64.0	66.6	66.6	67.6	67.1	65.8	64.4	64.4	3.6
14.	63.9	62.6	62.6	66.4	68.0	68.4	67.6	66.6	65.5	65.1	5.8
15.	63.9	61.7	62.1	65.1	68.0	69.6	68.0	66.9	64.9	64.8	7.9
16.	64.4	62.8	63.0	64.8	68.4	67.1	65.8	67.1	65.8	64.8	5.6
17.	64.4	63.0	62.4	65.7	68.0	69.3	66.7	64.8	64.9	65.1	6.9
18.	64.8	64.0	64.8	66.0	67.8	69.4	68.0	68.2	66.9	66.2	5.4
19.	66.8	65.3	64.8	66.2	67.5	68.0	68.7	67.6	66.0	65.7	3.9
20.	62.6	64.0	64.2	67.3	68.4	72.0	70.2	68.0	67.1	64.8	7.6
21.	63.3	62.6	64.0	66.6	69.4	71.6	67.6	66.9	66.2	64.6	9.0
22.	64.8	62.8	63.0	65.7	69.8	71.6	70.2	67.6	64.8	65.7	8.8
23.	63.6	61.7	61.2	65.8	68.7	69.6	68.0	65.8	65.1	65.3	8.4
24.	64.4	63.5	63.0	66.2	70.0	71.2	70.5	69.9	68.0	67.6	8.2
25.	64.9	62.4	62.6	65.8	70.5	71.4	69.8	68.7	68.9	68.4	11.7
26.	67.1	64.4	64.8	68.7	71.6	71.6	72.3	71.2	66.2	66.2	7.9
27.	65.8	63.7	64.4	66.6	71.2	72.7	71.4	70.3	68.0	66.6	9.0
28.	66.0	64.9	65.8	66.4	68.9	70.7	71.2	70.2	68.9	67.1	6.3
29.	66.4	66.2	64.0	65.8	70.3	71.6	73.0	71.6	68.4	65.8	9.0
30.	64.0	63.3	63.7	65.8	68.7	72.0	72.0	71.6	67.5	66.9	8.7
Mean.....	64.7	63.5	63.6	66.6	69.4	70.9	69.7	68.4	66.6	66.0	7.88

Mean temperature for month, 66.94°.

Temperature at Baguio, Benguet, during the month of October, 1900.

Day.	A. M.					P. M.					Daily variation.
	12.	4.	6.	8.	10.	12.	2.	4.	6.	8.	
1.	65.7	64.6	64.0	68.0	72.5	72.9	74.3	73.4	69.8	68.9	10.3
2.	66.6	66.0	64.8	69.4	71.2	72.3	71.6	69.8	67.8	67.6	7.5
3.	65.8	64.2	64.0	66.6	71.2	72.5	67.6	66.6	65.3	65.3	8.5
4.	64.8	63.7	62.6	67.5	67.1	69.8	65.7	65.8	65.1	65.1	7.2
5.	64.4	64.0	63.9	67.5	70.0	70.7	68.7	68.7	65.3	64.0	6.8
6.	62.6	62.1	65.8	65.8	69.3	71.2	69.8	68.9	64.8	64.8	9.1
7.	64.4	64.0	65.3	66.6	69.8	69.8	73.0	71.2	68.0	65.3	9.0
8.	64.8	63.1	64.0	66.2	70.7	72.9	67.6	66.9	65.3	64.6	9.8
9.	64.0	63.9	63.5	69.1	72.5	72.7	69.3	65.8	64.4	64.0	9.2
10.	62.6	61.5	59.9	67.5	71.1	73.4	72.3	73.0	69.1	67.5	13.5
11.	62.6	61.0	60.1	68.4	71.2	72.7	72.3	70.3	67.5	67.1	12.6
12.	66.2	63.1	61.7	68.7	71.6	71.2	72.5	71.2	68.0	66.2	10.8
13.	64.9	64.4	63.0	68.9	72.0	73.4	72.3	70.2	66.7	66.6	10.4
14.	64.8	62.6	63.0	69.3	73.2	74.8	73.4	73.2	68.0	66.2	12.2
15.	65.3	63.9	63.5	69.1	72.0	73.8	74.3	70.7	66.6	67.1	10.3
16.	65.5	64.4	64.0	66.2	68.0	70.2	70.0	66.6	65.3	62.6	6.2
17.	62.2	61.7	61.5	66.2	70.9	68.7	68.7	67.6	65.1	66.2	9.4
18.	65.3	63.0	61.5	65.7	68.4	70.2	71.2	68.5	66.7	64.0	9.7
19.	59.9	58.3	56.3	63.5	69.1	71.6	72.5	69.4	66.6	66.5	16.2
20.	64.2	62.6	62.2	66.2	68.0	69.3	68.0	67.5	66.6	65.3	7.1
21.	64.4	62.8	62.6	66.2	69.6	70.2	69.1	68.0	66.2	64.4	7.6
22.	64.2	61.2	60.4	65.8	70.3	70.2	71.2	69.8	66.9	67.1	10.8
23.	65.3	64.4	62.6	67.6	70.7	70.5	72.3	71.2	69.4	68.9	9.7
24.	66.2	64.0	64.0	69.4	72.9	72.5	73.4	71.2	68.9	68.7	9.4
25.	66.7	65.1	62.6	69.4	71.2	75.4	75.9	75.2	70.7	69.8	13.3
26.	67.5	65.3	64.4	66.9	70.5	71.6	74.3	74.1	67.6	66.2	9.9
27.	65.7	64.9	64.4	69.1	72.0	75.0	75.7	75.6	69.8	69.1	11.3
28.	67.1	64.4	62.2	64.0	71.2	72.0	71.6	73.0	69.4	64.0	10.8
29.	61.3	57.6	58.1	61.2	66.9	69.8	70.2	70.2	68.7	65.7	12.6
30.	63.1	60.8	57.9	63.5	69.8	71.6	69.8	70.2	67.6	64.8	13.7
31.	63.1	59.9	61.2	64.8	70.5	73.2	72.1	70.9	68.7	68.5	13.3
Mean	64.6	63.1	62.3	66.9	70.5	71.8	71.3	70.2	67.3	66.1	10.28

Mean temperature for month, 67.4°.

Relative humidity at Baguio, Benguet, during the month of August, 1900.

Day.	A. M.					P. M.				
	12.	4.	6.	8.	10.	12.	2.	4.	6.	8.
3.						88		85	90	
4.				86	77	86			96	97
5.		98	97	85	70	61	68	91	89	94
6.	84	96	95	85	73	67	79	81	90	97
7.	97	98	97	84	64	74	83	90	90	84
8.	85	90		91	83	86				88
9.	88	92		89	85	86		92		87
10.	92	92		86	85	92		70		92
11.	92	90		88	81	84		84		88
12.	89	92		95	91	90		90		92
13.	94	94		85	91	88		92		91
14.	96	96		96	94	91		93		92
15.	95	94	96	92	86	88	87	88	94	93
16.	91	94	92	92	90	89	89	94	92	94
17.	90	94	94	91	94	96	97	96	96	96
18.	98	99	98	97	95	97	96	97	98	98
19.	96	98	98	97	96	96	94	96	95	96
20.	96	97	96	96	94	96	95	94	96	95
21.	96	97	96	94	96	91	95	93	92	93
22.	97	97	97	97	95	96	97	97	91	97
23.	97	98	97	97	98	98	97	96	98	98
24.	97	98	98	98	96	94	97	98	96	98
25.	86	94	89	95	92	93	93	95	98	95
26.	96	96	96	98	92	92	94	95	96	97
27.	96	95	96	98	95	99	94	95	95	97
28.	92	98	96	92	95	93	98	90	92	93
29.	96	96	91	96	88	79	87	87	90	92
30.	92	92	90	97	91	89	92	92	94	96
31.	94	94	93	90	79	86	90	90	94	94
Mean	93	95	95	92	88	84	91	92	93	93

Relative humidity at Baguio, Benguet, during the month of September, 1900.

Day.	A. M.					P. M.					
	12.	4.	6.	8.	10.	12.	2.	4.	6.	8.	Mean.
1	98	98	92	84	77	75	72	87	89	89	85.1
2	88	89	87	76	73	65	58	82	91	84	81.8
3	87	89	90	79	77	71	70	88	94	87	82.7
4	92	82	94	80	78	66	84	91	87	88	83.7
5	90	90	90	72	68	82	85	84	87	87	83.5
6	90	89	89	87	85	84	89	90	90	92	88.5
7	91	95	90	86	70	80	88	89	92	90	87.1
8	96	92	94	76	78	88	90	94	89	92	88.4
9	98	94	97	97	96	96	97	97	96	93	95.6
10	98	98	95	98	87	84	90	82	85	90	90.2
11	98	94	98	86	87	88	91	90	92	90	89.9
12	98	92	94	90	87	88	95	98	94	98	92.4
13	92	92	97	92	92	94	95	96	96	98	94.4
14	93	96	94	88	91	90	94	96	96	98	95.6
15	96	96	95	92	81	84	85	90	94	96	90.8
16	92	97	98	96	89	89	90	89	92	95	92.2
17	96	96	96	98	89	88	89	90	95	94	92.0
18	97	96	96	96	92	90	94	98	98	95	94.1
19	92	96	95	94	95	92	89	90	92	98	92.8
20	96	96	97	91	98	90	89	95	98	92	93.6
21	96	92	96	95	91	86	89	88	92	96	92.1
22	96	96	96	91	84	82	89	92	96	91	91.5
23	96	98	98	90	84	85	91	92	94	98	91.0
24	98	98	91	90	88	84	87	92	95	90	90.8
25	97	91	98	86	80	84	98	94	98	95	90.6
26	98	95	94	89	82	98	79	84	92	98	89.4
27	94	96	96	96	86	82	88	84	90	90	89.7
28	98	97	94	94	91	81	84	82	88	89	89.8
29	91	92	92	90	81	79	74	82	88	92	86.1
30	94	88	85	88	79	78	72	84	89	89	84.2
Mean	98	98	98	88	85	88	86	89	92	92	.....

Absolute mean, 89.4.

Relative humidity at Baguio, Benguet, during the month of October, 1900.

Day.	A. M.					P. M.					
	12.	4.	6.	8.	10.	12.	2.	4.	6.	8.	Mean.
1	90	94	90	81	77	75	72	79	89	84	83.1
2	90	92	90	88	80	77	92	82	89	87	85.2
3	90	86	90	90	84	78	91	90	98	98	89.2
4	94	94	82	86	90	96	89	92	98	94	92.0
5	95	92	91	90	86	85	94	87	92	92	90.4
6	93	88	88	85	80	79	79	81	95	92	85.9
7	91	92	87	88	88	82	87	82	91	87	86.1
8	98	91	90	92	91	74	88	87	92	91	83.9
9	92	89	88	82	72	72	80	92	98	92	86.4
10	93	87	81	83	72	72	88	81	90	84	82.6
11	90	88	81	80	67	79	81	86	89	88	83.9
12	90	87	84	78	76	86	85	82	87	85	83.5
13	87	86	90	81	71	69	79	78	80	79	80.1
14	88	78	76	74	69	67	86	78	79	77	74.6
15	83	86	85	80	87	80	65	69	86	95	74.2
16	90	80	80	90	87	80	79	85	86	95	84.2
17	96	92	90	86	74	74	77	85	91	88	85.4
18	90	95	91	79	71	75	77	77	80	86	82.1
19	89	88	87	77	80	81	82	87	87	86	84.4
20	88	91	90	88	81	74	79	80	87	88	84.1
21	90	91	92	87	78	79	81	84	85	84	85.0
22	87	94	91	87	73	79	81	84	91	89	85.9
23	92	96	88	83	80	84	81	84	88	89	87.0
24	91	90	89	88	80	83	81	87	90	80	84.5
25	90	91	91	80	73	64	48	59	69	80	70.2
26	89	81	75	70	60	68	62	58	68	73	75.8
27	81	85	82	80	72	67	65	71	77	84	81.9
28	84	88	87	84	71	79	80	79	88	88	81.9
29	88	80	88	86	60	77	79	80	88	88	83.1
30	89	90	84	84	75	72	74	84	89	90	83.1
31	88	90	88	90	78	68	80	88	86	85	82.6
Mean	89	89	87	82	76	76	79	81	86	86	.....

Absolute mean, 83.1.

Atmospheric pressure—Barometric reading at Baguio, Benguet.

AUGUST, 1900.

Day.	A. M.					P. M.				
	12.	4.	6.	8.	10.	12.	2.	4.	6.	8.
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
8	25.306	25.285	25.330	25.385	25.340	25.300	25.282	25.310	25.308	25.310
9	315	275	285	300	266	275	275	279	279	279
10	307	267	275	275	310	255	255	272	272	272
11	282	242	248	252	232	175	175	212	212	212
12	257	189	197	201	203	144	144	163	163	163
13	166	118	130	134	124	079	079	123	123	123
14	149	132	155	161	156	25.147	122	25.138	163	163
15	126	122	149	159	149	144	130	147	155	155
16	187	128	146	173	185	134	132	157	169	169
17	147	144	144	185	173	140	118	126	155	155
18	161	094	108	124	132	106	088	110	140	140
19	120	116	136	158	163	142	140	138	173	173
20	185	165	175	165	222	207	191	165	194	187
21	209	210	209	232	248	232	216	212	230	234
22	252	230	234	266	283	262	262	262	270	291
23	309	281	288	308	307	298	305	252	220	291
24	262	248	252	262	272	238	201	201	212	212
25	212	163	165	187	208	185	173	179	185	201
26	216	206	218	232	256	254	246	248	270	279
27	293	285	298	305	340	350	340	344	374	403
28	346	342	352	374	392	384	354	358	356	352
29	358	327	325	346	362	348	327	311	329	348
30	366	319	338	354	362	352	335	340	354	374
Mean	25.240	25.212	25.215	25.240	25.251	25.241	25.219	25.212	25.228	25.244

SEPTEMBER, 1900.

Day.	A. M.					P. M.				
	12.	4.	6.	8.	10.	12.	2.	4.	6.	8.
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
1	25.382	25.370	25.380	25.405	25.421	25.401	25.366	25.382	25.400	25.401
2	384	388	390	421	433	421	390	392	421	433
3	413	384	378	398	400	392	388	370	382	374
4	384	356	356	370	394	370	348	346	360	382
5	354	325	328	366	376	327	315	321	327	342
6	301	377	289	313	315	266	254	242	248	248
7	282	175	163	171	179	154	104	098	086	092
8	069	008	018	037	028	000	24.966	24.976	24.930	24.938
9	24.922	24.950	014	080	120	118	25.114	25.142	25.171	25.212
10	25.209	25.252	262	295	323	319	299	301	308	329
11	346	323	319	358	370	360	338	337	337	344
12	342	317	317	340	344	384	307	287	301	317
13	311	303	279	305	313	301	277	270	277	291
14	289	283	279	305	321	311	283	262	281	291
15	283	263	272	289	296	291	285	272	281	305
16	299	283	275	311	338	323	299	291	296	329
17	305	270	274	297	311	295	279	262	270	279
18	275	263	260	297	305	297	260	258	272	295
19	283	268	283	342	346	340	319	307	317	340
20	381	327	325	370	378	358	331	323	342	364
21	350	335	362	394	407	394	354	354	370	386
22	366	360	374	421	421	401	368	360	364	398
23	382	364	344	380	401	386	327	319	335	350
24	351	323	274	298	308	281	250	250	268	277
25	270	185	216	291	307	295	252	242	268	279
26	264	264	272	307	321	303	291	262	268	289
27	303	283	295	319	335	325	308	287	299	315
28	335	323	335	319	338	327	299	299	323	346
29	335	323	335	364	382	366	331	329	344	374
30	352	344	356	384	384	358	342	335	388	346
Mean	25.298	25.281	25.286	25.318	25.333	25.315	25.288	25.283	25.294	25.309

Atmospheric pressure—Barometric reading at Baguio, Benguet—Continued.

OCTOBER, 1900.

Day.	A. M.					P. M.				
	12.	4.	6.	8.	10.	12.	2.	4.	6.	8.
1	25.342	25.323	25.315	25.344	25.366	25.327	25.308	25.303	25.327	25.342
2	.327	.323	.321	.354	.358	.346	.313	.315	.344	.364
3	.354	.333	.335	.354	.362	.348	.321	.321	.335	.364
4	.342	.315	.317	.352	.362	.329	.303	.303	.325	.337
5	.323	.308	.323	.356	.372	.346	.303	.311	.337	.344
6	.333	.313	.325	.362	.374	.342	.306	.287	.283	.309
7	.307	.303	.305	.350	.378	.376	.340	.327	.331	.350
8	.346	.340	.352	.384	.394	.396	.372	.374	.394	.401
9	.396	.382	.392	.413	.413	.398	.364	.370	.373	.409
10	.392	.386	.378	.421	.419	.409	.382	.382	.388	.405
11	.401	.386	.423	.433	.439	.419	.382	.380	.384	.390
12	.382	.368	.342	.360	.364	.342	.309	.315	.321	.344
13	.303	.285	.279	.299	.289	.264	.268	.224	.230	.250
14	.234	.201	.199	.242	.266	.256	.224	.230	.234	.260
15	.248	.246	.264	.301	.311	.299	.266	.270	.281	.307
16	.296	.289	.295	.346	.350	.321	.311	.321	.325	.362
17	.360	.364	.378	.401	.403	.400	.362	.372	.386	.413
18	.401	.386	.396	.411	.429	.396	.382	.386	.396	.408
19	.382	.362	.337	.360	.362	.338	.315	.303	.315	.333
20	.323	.313	.307	.342	.356	.340	.317	.319	.338	.350
21	.346	.346	.382	.405	.411	.394	.370	.362	.372	.382
22	.374	.362	.366	.394	.405	.401	.374	.366	.368	.382
23	.362	.354	.364	.398	.409	.390	.382	.362	.372	.386
24	.368	.362	.370	.401	.409	.400	.376	.374	.382	.392
25	.366	.368	.386	.413	.441	.445	.431	.425	.421	.411
26	.413	.394	.401	.429	.453	.441	.423	.411	.413	.421
27	.409	.401	.400	.421	.447	.457	.405	.401	.398	.401
28	.400	.406	.429	.455	.461	.453	.433	.421	.419	.431
29	.401	.398	.409	.449	.469	.459	.421	.401	.405	.417
30	.398	.386	.360	.398	.409	.401	.374	.370	.374	.394
31	.382	.362	.342	.350	.354	.337	.287	.287	.305	.313
Mean	25.355	25.344	25.348	25.377	25.388	25.373	25.346	25.342	25.351	25.367

Clouds, fog, and rain at Baguio, province of Benguet.

AUGUST, 1900.

Day.	Clouds.			Rainfall.	Remarks.
	Hour.	Form.	Amount (scale, 0-10).		
				<i>Inches.</i>	
7.	12 a.m.	Cl	3		
	4 a.m.				
	8 a.m.	Cl. Cu.	3		
	10 a.m.	Cl. Cu.	3		
	12 p.m.	Cu.	6		
	4 p.m.	N.	10		
	8 p.m.	Cl. Cu.	5		
8.	12 a.m.	Cl. Cu.	6		
	4 a.m.	Cl	2		
	8 a.m.	Cl	2		
	10 a.m.	Cu.	3		
	12 p.m.	Cu. N	7		
	4 p.m.	Cu. N	10		1 p. m. rain; 3 p. m. drizzle.
	8 p.m.	Cl	2	.09	Rain 5 p. m.; fog 6 p. m.; thunderstorm.
9.	12 a.m.	Cl. Cu.	7		
	4 a.m.	Cl	4		Light fog.
	8 a.m.	Fr. Cu	4		Drizzle.
	10 a.m.	Cu.	7		
	12 p.m.	Cu. N	8		1 p. m. rain; thunderstorm.
	4 p.m.	Cu. N	10		Thunderstorm; fog.
	8 p.m.	S. Cu	10	.24	
10.	12 a.m.	Cu. N	6		
	4 a.m.	S. Cu	4		
	8 a.m.	Cl. Cu.	3		
	10 a.m.	Cu.	3		
	12 p.m.	Cu. N	10		Rain; thunderstorm.
	4 p.m.	N	10	.21	Thunderstorm toward the south.
11.	12 a.m.	Cl. Cl	8		
	4 a.m.	Cl. Cu.	5		
	8 a.m.	Cl	3		
	10 a.m.	Cl. Cu.	5		

Clouds, fog, and rain at Baguio, province of Benguet—Continued.

AUGUST, 1900—Continued.

Day.	Clouds.			Rainfall.	Remarks.
	Hour.	Form.	Amount (scale, 0-10).		
				<i>Inches.</i>	
11.....	12 p. m.	S. Cu	8		2 p. m. rain.
	4 p. m.	S. Cu	10		
	8 p. m.	Cl. Cu	8	.13	
12.....	12 a. m.	S. Cu	8		
	4 a. m.	S. Cu	9		
	8 a. m.	S. Cu	10		Drizzle.
	10 a. m.	S. Cu	10		
	12 p. m.	S. Cu	10		2 p. m. drizzle; fog.
	4 p. m.	S. Cu	10		
	8 p. m.	S. Cu	10	.39	
13.....	12 a. m.	S. Cu	10		
	4 a. m.	S. Cu	10		
	8 a. m.	S. Cu	10		
	10 a. m.	Cl. Cu	10		
	12 p. m.	Cl. Cu	10		
	4 p. m.	S. Cu	10		Rain.
	8 p. m.	S. Cu	10	.13	Do.
14.....	12 a. m.	S. Cu	10		Rain.
	4 a. m.	S. Cu	10		Fog.
	8 a. m.	S. Cu	10		Rain; fog.
	10 a. m.	S. Cu	10		Do.
	12 p. m.	Cu. N	9		
	4 p. m.	Cu. N	10		Rain.
	8 p. m.	N	10	.59	Do.
15.....	12 a. m.	Cl. Cu	10		Fog.
	4 a. m.	Cl. Cu	10		Rain.
	6 a. m.	Cl. Cu	10		Do.
	8 a. m.	Cl. Cu	10		
	10 a. m.	Cl. Cu	10		
	12 p. m.	Cu. N	10		
	2 p. m.	Cu. N	10		Drizzle.
	4 p. m.	Cl. Cu	10		Rain.
	6 p. m.	Cl. Cu	10		Rain; fog.
	8 p. m.	Cu. N	10	1.38	
16.....	12 a. m.	Cu. N	10		
	4 a. m.	Cl. Cu	10		Fog.
	6 a. m.	S. Cu	10		
	8 a. m.	Fr. Cu	9		
	10 a. m.	Cu. N	10		Rain.
	12 p. m.	S. Cu	10		
	2 p. m.	S. Cu	10		Rain; thunderstorm.
	4 p. m.	Cu. N	10		Rain.
	6 p. m.	Cu. N	10		
	8 p. m.	Cu. N	10	.87	
17.....	12 a. m.	S. Cu	10		
	4 a. m.	S. Cu	10		
	6 a. m.	Cu. N	10		Fog.
	8 a. m.	Cu. N	10		
	10 a. m.	Cu. N	10		Rain.
	12 p. m.	Cu. N	10		
	2 p. m.	Cu. N	10		Fog.
	4 p. m.	Cu. N	10		Rain; fog.
	6 p. m.	Cu. N	10		Do.
	8 p. m.	Cu. N	10	.93	Do.
18.....	12 a. m.	N	10		Do.
	4 a. m.	N	10		Do.
	6 a. m.	N	10		Do.
	8 a. m.	Cu. N	10		Do.
	10 a. m.	Cu. N	10		Do.
	12 p. m.	Cu. N	10		Rain.
	2 p. m.	Cu. N	10		Rain; fog.
	4 p. m.	Cu. N	10		Do.
	6 p. m.	Cu. N	10		Do.
	8 p. m.	Cu. N	10	2.87	Do.
19.....	12 a. m.	N	10		Rain.
	4 a. m.	N	10		Do.
	6 a. m.	N	10		Drizzle.
	8 a. m.	N	10		Rain.
	10 a. m.	Cu. N	10		Rain; fog.
	12 p. m.	Cu. N	10		Do.
	2 p. m.	Cu. N	10		Rain.
	4 p. m.	Cu. N	10		Rain; fog.
	6 p. m.	Cu. N	10		Do.
	8 p. m.	Cu. N	10	3.07	Rain; thunderstorm.
20.....	12 a. m.	N	10		Do.
	4 a. m.	Cu. N	10		Rain; fog.
	6 a. m.	Cu. N	10		Drizzle.
	8 a. m.	S. Cu	10		Rain.

Clouds, fog, and rain at Baguio, province of Benguet—Continued.

AUGUST, 1900—Continued.

Day.	Clouds.			Rainfall.	Remarks.
	Hour.	Form.	Amount (scale, 0-10).		
				<i>Inches.</i>	
20.....	10 a.m.	S. Cu.	10		Rain.
	12 p.m.	N.	10		
	2 p.m.	N.	10		Fog.
	4 p.m.	N.	10		Fog; rain.
	6 p.m.	N.	10		Do.
	8 p.m.	N.	10	5.12	Rain.
21.....	12 a.m.	N.	10		Do.
	4 a.m.	Cu. N.	10		Do.
	6 a.m.	Cu. N.	10		Drizzle.
	8 a.m.	Cu. N.	10		Rain.
	10 a.m.	Cu. N.	10		Do.
	12 p.m.	Cu. N.	10		
	2 p.m.	Cu. N.	10		
	4 p.m.	S. Cu.	10		Drizzle; fog.
	6 p.m.	Cu. N.	10		Rain.
	8 p.m.	Cu. N.	10	5.12	
22.....	12 a.m.	Cu. N.	10		
	4 a.m.	Cu. N.	10		Do.
	6 a.m.	Cu. N.	10		Rain; fog.
	8 a.m.	S. Cu.	10		Do.
	10 a.m.	S. Cu.	10		Drizzle.
	12 p.m.	S. Cu.	10		Rain; fog; thunder.
	2 p.m.	Cu. N.	10		Do.
	4 p.m.	Cu. N.	10		Rain; fog.
	6 p.m.	Cu. N.	10		Do.
	8 p.m.	Cu. N.	10	2.60	Rain.
23.....	12 a.m.	Cu. N.	10		
	4 a.m.	Cu. N.	10		Do.
	6 a.m.	Cu. N.	10		Rain; fog.
	8 a.m.	S. Cu.	10		Do.
	10 a.m.	S. Cu.	10		Drizzle; fog.
	12 p.m.	S. Cu.	10		Rain; fog.
	2 p.m.	S. Cu.	10		Do.
	4 p.m.	S. Cu.	10		
	6 p.m.	Cu. N.	10		Rain.
	8 p.m.	Cu. N.	10	3.15	Drizzle.
24.....	12 a.m.	S. Cu.	10		
	4 a.m.	S. Cu.	10		Do.
	6 a.m.	Cu. N.	10		Fog.
	8 a.m.	S. Cu.	10		Do.
	10 a.m.	S. Cu.	10		Drizzle.
	12 p.m.	Cu. N.	9		
	2 p.m.	Cu. N.	10		Rain; fog.
	4 p.m.	Cu. N.	10		Do.
	6 p.m.	Cu. N.	10		Rain.
	8 p.m.	Cu. N.	10	2.56	Do.
25.....	12 a.m.	Cu. N.	10		
	6 a.m.	S. Cu.	10		Fog.
	8 a.m.	S. Cu.	10		Rain.
	10 a.m.	Cu. N.	10		Drizzle.
	12 p.m.	Cu. N.	10		Rain.
	2 p.m.	Cu. N.	10		Do.
	4 p.m.	S. Cu.	10		Drizzle.
	6 p.m.	Cu. N.	10		Fog.
	8 p.m.	Cu. N.	10	2.32	Do.
26.....	12 a.m.	Cu. N.	10		
	4 a.m.	Cu. N.	10		
	6 a.m.	Cl. Cu.	9		
	8 a.m.	Cl. Cu.	9		
	10 a.m.	Cl. Cu.	8		
	12 p.m.	Cl. Cu.	9		Rain.
	2 p.m.	Cu. N.	10		Rain; fog.
	4 p.m.	Cu. N.	10		Rain.
	6 p.m.	Cu. N.	10		Rain; fog.
	8 p.m.	Cu. N.	10	0.83	
27.....	12 a.m.	Cu. N.	10		Drizzle.
	4 a.m.	Cu. N.	10		Do.
	6 a.m.	Cu. N.	10		Do.
	8 a.m.	Cu. N.	10		Do.
	10 a.m.	Cu. N.	10		Drizzle; fog.
	12 p.m.	Cu. N.	10		Rain.
	2 p.m.	Cu. N.	10		
	4 p.m.	Cu. N.	10		Do.
	6 p.m.	Cu. N.	10		Rain; fog.
	8 p.m.	Cu. N.	10	1.38	Rain.
28.....	12 a.m.	Cu. N.	10		
	4 a.m.	Cu. N.	10		

Clouds, fog, and rain at Baguio, province of Benguet—Continued.

AUGUST, 1900—Continued.

Day.	Clouds.			Rainfall.	Remarks.
	Hour.	Form.	Amount (scale, 0-10).		
28.....	6 a.m.	Cu. N.	7	<i>Inches.</i>	
	8 a.m.	Cu. N.	9		
	10 a.m.	S. Cu.	10		Drizzle.
	12 p.m.	Cu. N.	10		Do.
	2 p.m.	S. Cu.	10		
	4 p.m.	S. Cu.	10		Do.
	6 p.m.	Cu. N.	10		Rain; fog.
	8 p.m.	Cu. N.	10	1.11	
29.....	12 a.m.	S. Cu.	9		
	4 a.m.	S. Cu.	8		
	6 a.m.	S. Cu.	8		
	8 a.m.	Cl. Cu.	7		
	10 a.m.	A. Cu.	5		
	12 p.m.	Cl. Cu.	6		
	2 p.m.	Cl. Cu.	7		
	4 p.m.	Cl. Cu.	8		
	6 p.m.	Cu. N.	9		
	8 p.m.	Cu.	3	0.75	
30.....	12 a.m.	Cu.	4		
	4 a.m.	Cu.	3		
	6 a.m.	A. Cu.	3		
	8 a.m.	Cu.	2		
	10 a.m.	S. Cu.	9		
	12 p.m.	Cu. N.	9		
	2 p.m.	Cu. N.	10		Rain; thunder toward west.
	4 p.m.	Cl. Cu.	7		
	6 p.m.	Cu. N.	8		Drizzle.
	8 p.m.	Cu. N.	10	0.04	Rain.
31.....	12 a.m.	Cl. Cu.	5		
	4 a.m.	Cl. Cu.	5		
	6 a.m.	Cl.	3		
	8 a.m.	Cl.	3		
	10 a.m.	Cu.	3		
	12 p.m.	Cu. N.	9		
	2 p.m.	Cu. N.	10		Rain; fog.
	4 p.m.	Cu. N.	10		Rain; fog; thunder.
	6 p.m.	Cu. N.	7		Drizzle.
	8 p.m.	Cu. N.	9	1.18	
Total rainfall for the month.....				37.04	

SEPTEMBER, 1900.

1.....	12 a.m.	Cu.	6		
	4 a.m.	Cu.	6		
	6 a.m.	Cl. Cu.	4		
	8 a.m.	Cl. Cu.	6		
	10 a.m.	A. Cu.	4		
	12 p.m.	Cl. Cu.	7		
	2 p.m.	Cl. Cu.	7		
	4 p.m.	S. Cu.	8		
	6 p.m.	Cl. Cu.	6		
	8 p.m.	Cl. Cu.	4	0.71	
2.....	12 a.m.	Cl.	4		
	4 a.m.	Cl.	3		
	6 a.m.	Cl.	2		
	8 a.m.	A. Cu.	3		
	10 a.m.	Cl. Cu.	3		
	12 p.m.	Cl. Cu.	3		
	2 p.m.	Cu.	5		
	4 p.m.	Cl. Cu.	5		
	6 p.m.	Cl. Cu.	4		
	8 p.m.	Cu.	4	0.0	
3.....	12 a.m.	S. Cu.	2		
	4 a.m.	S. Cu.	5		Fog.
	6 a.m.	S. Cu.	5		Do.
	8 a.m.	S. Cu.	7		
	10 a.m.	A. Cu.	4		
	12 p.m.	Cl. Cu.	5		
	2 p.m.	Cu. N.	7		
	4 p.m.	S. Cu.	9		Rain; thunder.
	6 p.m.	Cl. Cu.	6		
	8 p.m.	Cl. Cu.	5	0.0	
4.....	12 a.m.	Cl.	3		
	4 a.m.	Cl.	3		

Clouds, fog, and rain at Baguio, province of Benguet—Continued.

SEPTEMBER, 1900—Continued.

Day.	Clouds.			Rainfall.	Remarks.
	Hour.	Form.	Amount (scale, 0-10).		
				<i>Inches.</i>	
4.....	6 a.m.	Cl	3		
	8 a.m.	Cl	3		
	10 a.m.	Cl. Cu	3		
	12 p.m.	Cl. Cu	4		
	2 p.m.	S. Cu.	7		
	4 p.m.	S. Cu.	9		
	6 p.m.	A. Cu	3		Fog.
	8 p.m.	Cl. Cu	3	0.06	
5.....	12 a.m.	A. Cu	3		
	4 a.m.	Cl. Cu	3		
	6 a.m.	Cl	1		
	8 a.m.	Cl. Cu	2		
	10 a.m.	Cu	2		
	12 p.m.	Cu. N	6		
	2 p.m.	Cu	7		Thunder toward north.
	4 p.m.	Cu. N	10		
	6 p.m.	Cu	3		
	8 p.m.	Cl	3	0.0	
6.....	12 a.m.	Cu	6		
	4 a.m.	S. Cu.	6		
	6 a.m.	Cu. N	5		
	8 a.m.	S. Cu.	9		
	10 a.m.	S. Cu.	8		
	12 p.m.	S. Cu.	10		Drizzle.
	2 p.m.	S. Cu.	10		Do.
	4 p.m.	Cu. N	10		Do.
	6 p.m.	S. Cu.	10		Do.
	8 p.m.	S. Cu.	10	1.5	
7.....	12 a.m.	S. Cu.	10		Drizzle.
	4 a.m.	S. Cu.	10		
	6 a.m.	S. Cu.	10		Convergent clouds toward southeast.
	8 a.m.	S. Cu.	10		
	10 a.m.	S. Cu.	9		
	12 p.m.	S. Cu.	9		
	2 p.m.	S. Cu.	10		
	4 p.m.	S. Cu.	10		
	6 p.m.	Cu. N	10		
	8 p.m.	Cu. N	10	0.31	
8.....	12 a.m.	Cu. N	10		
	4 a.m.	S. Cu.	10		
	6 a.m.	S. Cu.	9		
	8 a.m.	S. Cu.	8		
	10 a.m.	S. Cu.	8		
	12 p.m.	S. Cu.	10		Drizzle.
	2 p.m.	Cu. N	10		Do.
	4 p.m.	Cu. N	10		Rain.
	6 p.m.	Cu. N	10	0.33	Do.
	8 p.m.	Cu. N	10		Do.
9.....	12 a.m.	Cu. N	10		Do.
	4 a.m.	Cu. N	10		Do.
	6 a.m.	Cu. N	10		Do.
	8 a.m.	Cu. N	10		Rain; fog.
	10 a.m.	Cu. N	10		Do.
	12 p.m.	Cu. N	10		Do.
	2 p.m.	Cu. N	10		Rain.
	4 p.m.	Cu. N	10		Drizzle.
	6 p.m.	Cu. N	10		Do.
	8 p.m.	Cu. N	10	3.74	Do.
10.....	12 a.m.	S. Cu.	10		Drizzle.
	4 a.m.	S. Cu.	10		Do.
	6 a.m.	Cu. N	9		
	8 a.m.	S. Cu.	9		
	10 a.m.	Cu. N	10		
	12 p.m.	S. Cu.	10		
	2 p.m.	S. Cu.	9		
	4 p.m.	S. Cu.	7		
	6 p.m.	S. Cu.	8		
	8 p.m.	Cu. N	10	1.10	
11.....	12 a.m.	Cu	7		
	4 a.m.	Cu	7		
	6 a.m.	Cl. Cu	6		
	8 a.m.	Cl	3		
	10 a.m.	Cu. N	7		
	12 p.m.	Cu	4		
	2 p.m.	Cu. N	8		
	4 p.m.	S. Cu.	10		
	6 p.m.	Cu. N	7		
	8 p.m.	Cu. N	7	0.10	

Clouds, fog, and rain at Baguio, province of Benguet—Continued.

SEPTEMBER, 1900—Continued.

Day.	Clouds.			Rainfall.	Remarks.
	Hour.	Form.	Amount (scale, 0-10).		
				<i>Inches.</i>	
12.....	12 a.m.	Cu. N	6		
	4 a.m.	Cu. N	6		Fog.
	6 a.m.	S. Cu.	7		Do.
	8 a.m.	S. Cu.	8		
	10 a.m.	Cu. N	6		
	12 p.m.	S. Cu.	10		Drizzle.
	2 p.m.	S. Cu.	10		Rain; fog.
	4 p.m.	Cu. N	10		Do.
	6 p.m.	Cu. N	10		Do.
	8 p.m.	Cu. N	10	0.28	Do.
13.....	12 a.m.	S. Cu.	7		Fog.
	4 a.m.	S. Cu.	6		
	6 a.m.	S. Cu.	6		Fog.
	8 a.m.	S. Cu.	7		Drizzle; fog.
	10 a.m.	S. Cu.	10		Drizzle.
	12 p.m.	S. Cu.	10		Drizzle; fog.
	2 p.m.	S. Cu.	10		Do.
	4 p.m.	S. Cu.	10		Drizzle.
	6 p.m.	S. Cu.	10		
	8 p.m.	S. Cu.	10	0.33	
14.....	12 a.m.	S. Cu.	9		Fog.
	4 a.m.	S. Cu.	8		Do.
	6 a.m.	Cl. Cu.	6		
	8 a.m.	Cl.	3		
	10 a.m.	Cl. Cu.	5		Drizzle; fog.
	12 p.m.	S. Cu.	10		Do.
	2 p.m.	S. Cu.	10		Drizzle.
	4 p.m.	S. Cu.	10		Rain.
	6 p.m.	S. Cu.	10		
	8 p.m.	Cu. N	10	0.30	
15.....	12 a.m.	Cu. N	10		Fog.
	4 a.m.	Cu. N	9		
	6 a.m.	Cl.	5		
	8 a.m.	Cl. Cu.	5		
	10 a.m.	Cl.	3		
	12 p.m.	Cu.	5		
	2 p.m.	Cu. N	7		
	4 p.m.	S. Cu.	8		Drizzle.
	6 p.m.	S. Cu.	10		Do.
	8 p.m.	Cu. N	10	0.55	
16.....	12 a.m.	Cu. N	9		
	4 a.m.	Cu. N	9		
	6 a.m.	S. Cu.	8		Fog.
	8 a.m.	S. Cu.	8		Rain.
	10 a.m.	Cu. N	7		Do.
	12 p.m.	Cu. N	10		Drizzle.
	2 p.m.	S. Cu.	10		Do.
	4 p.m.	S. Cu.	9		Do.
	6 p.m.	Cu. N	9		Do.
	8 p.m.	Cu. N	10	0.10	Do.
17.....	12 a.m.	S. Cu.	8		
	4 a.m.	S. Cu.	6		Fog.
	6 a.m.	A. Cu.	3		Do.
	8 a.m.	Cl. Cu.	4		
	10 a.m.	Cu.	8		
	12 p.m.	Cu.	4		Do.
	2 p.m.	Cu. N	10		Rain; thunderstorm.
	4 p.m.	S. Cu.	10		Drizzle.
	6 p.m.	Cu. N	10		Drizzle; fog.
	8 p.m.	Cu. N	10	0.67	Rain.
18.....	12 a.m.	Cu. N	10		Do.
	4 a.m.	Cu. N	10		Drizzle; fog.
	6 a.m.	S. Cu.	10		Do.
	8 a.m.	S. Cu.	10		Do.
	10 a.m.	S. Cu.	10		
	12 p.m.	Cu. N	9		Drizzle.
	2 p.m.	S. Cu.	10		
	4 p.m.	S. Cu.	10		Do.
	6 p.m.	Cu. N	10		Rain.
	8 p.m.	Cu. N	10	1.34	
19.....	12 a.m.	Cu. N	10		
	4 a.m.	Cu. N	10		Fog.
	6 a.m.	Cu. N	9		
	8 a.m.	S. Cu.	9		
	10 a.m.	S. Cu.	10		Do.
	12 p.m.	S. Cu.	10		Drizzle.
	2 p.m.	S. Cu.	10		Do.

Clouds, fog, and rain at Baguio, province of Benguet—Continued.

SEPTEMBER, 1900—Continued.

Day.	Clouds.			Rainfall.	Remarks.
	Hour.	Form.	Amount (scale, 0-10).		
				<i>Inches.</i>	
19.....	4 p.m.	S. Cu.	8		
	6 p.m.	S. Cu.	7		
	8 p.m.	Cu.	7	0.30	
20.....	12 a.m.	Cu.	5		
	4 a.m.	Cu.	4		Fog.
	6 a.m.	Cl. Cu.	3		
	8 a.m.	Cl. Cu.	4		
	10 a.m.	Cl. Cu.	5		
	12 p.m.	S. Cu.	8		Drizzle.
	2 p.m.	Cu. N	9		Drizzle; thunder toward north.
	4 p.m.	S. Cu.	10		Drizzle; thunder toward southwest.
	6 p.m.	Cu. N	10		Drizzle; thunder.
	8 p.m.	Cu. N	10	0.04	Do.
21.....	12 a.m.	Cu. N	7		
	4 a.m.	Cu. N	7		Fog.
	6 a.m.	S. Cu.	8		
	8 a.m.	Cl. Cu.	7		
	10 a.m.	Cu. N	8		
	12 p.m.	Cu. N	10		Rain.
	2 p.m.	S. Cu.	9		
	4 p.m.	S. Cu.	9		
	6 p.m.	Cu.	4		
	8 p.m.	Cl.	3	0.98	Fog.
22.....	12 a.m.	Cl. Cu.	4		
	4 a.m.	Cu.	4		Fog.
	6 a.m.	S. Cu.	5		Do.
	8 a.m.	Cl. Cu.	4		
	10 a.m.	Cl. Cu.	4		
	12 p.m.	Cl. Cu.	4		
	2 p.m.	Cu. N	9		
	4 p.m.	S. Cu.	10		Rain.
	6 p.m.	Cu.	6		
	8 p.m.	Cu.	5	0.28	
23.....	12 a.m.	Cu.	5		
	4 a.m.	Cu.	4		
	6 a.m.	Cl.	2		Fog.
	8 a.m.	Cl.	2		
	10 a.m.	Cu. N	8		
	12 p.m.	Cu. N	7		
	2 p.m.	Cu. N	9		Drizzle.
	4 p.m.	S. Cu.	10		Rain.
	6 p.m.	S. Cu.	10		
	8 p.m.	Cu. N	10	0.10	
24.....	12 a.m.	Cu. N	10		
	4 a.m.	Cu. N	9		
	6 a.m.	A. Cu.	4		
	8 a.m.	Cl. Cu.	6		
	10 a.m.	Cl. Cu.	5		
	12 p.m.	Cu. N	7		
	2 p.m.	Cu. N	9		
	4 p.m.	S. Cu.	9		
	6 p.m.	S. Cu.	5		
	8 p.m.	Cu.	6	0.18	
25.....	12 a.m.	Cu.	4		
	4 a.m.	Cl. Cu.	4		
	6 a.m.	Cl. Cu.	3		Fog.
	8 a.m.	Cl. Cu.	3		
	10 a.m.	Cl. Cu.	4		
	12 p.m.	Cu.	3		Do.
	2 p.m.	Cu.	5		Do.
	4 p.m.	S. Cu.	8		Fog; rain.
	6 p.m.	S. Cu.	10		
	8 p.m.	S. Cu.	10	0.02	
26.....	12 a.m.	Cu. N	10		
	4 a.m.	S. Cu.	7		
	6 a.m.	S. Cu.	8		
	8 a.m.	Cl. Cu.	6		
	10 a.m.	Cl. Cu.	6		
	12 p.m.	Cu.	7		
	2 p.m.	Cu.	8		
	4 p.m.	S. Cu.	10		Drizzle.
	6 p.m.	S. Cu.	10		
	8 p.m.	S. Cu.	10	0.20	
27.....	12 a.m.	Cu. N	10		
	4 a.m.	Cu.	8		Fog.
	6 a.m.	Cl. Cu.	8		Do.
	8 a.m.	Cu.	7		
	10 a.m.	Cl. Cu.	4		

Clouds, fog, and rain at Baguio, province of Benguet—Continued.

SEPTEMBER, 1900—Continued.

Day.	Clouds.			Rainfall.	Remarks.
	Hour.	Form.	Amount (scale, 0-10).		
27.....	12 p.m.	Cu.	5	<i>Inches.</i>	
	2 p.m.	Cl. Cu.	4		
	4 p.m.	Cu. N	10		
	6 p.m.	Cu. N	10		
	8 p.m.	Cu.	3	0.06	
28.....	12 a.m.	S. Cu.	8		
	4 a.m.	S. Cu.	7		
	6 a.m.	S. Cu.	8		
	8 a.m.	S. Cu.	10		
	10 a.m.	Cu. N	9		
	12 p.m.	Cl. Cu.	6		
	2 p.m.	Cl. Cu.	4		
	4 p.m.	Cl. Cu.	6		
	6 p.m.	Cl. Cu.	5		
	8 p.m.	Cu. N	7	0.04	
29.....	12 a.m.	Cu. N	8		
	4 a.m.	Cu. N	7		
	6 a.m.	Cl. Cu.	5		
	8 a.m.	S. Cu.	9		
	10 a.m.	Cl. Cu.	6		
	12 p.m.	S. Cu.	7		
	2 p.m.	Cu. N	9		
	4 p.m.	Cl. Cu.	4		
	6 p.m.	Cl. Cu.	7		
	8 p.m.	Cl.	3	0.0	
30.....	12 a.m.	S. Cu.	9		
	4 a.m.	Cl. Cu.	8		
	6 a.m.	S. Cu.	8		
	8 a.m.	S. Cu.	9		
	10 a.m.	S. Cu.	8		
	12 p.m.	S. Cu.	9		
	2 p.m.	S. Cu.	8		
	4 p.m.	Cl. Cu.	5		
	6 p.m.	A. Cu.	4		
	8 p.m.	A. Cu.	4	0.0	
Total rainfall for month.....				12.16	

OCTOBER, 1900.

				<i>Inches.</i>	
1.....	12 a.m.	Cu.	6		
	4 a.m.	Cu.	5		
	6 a.m.	A. Cu.	4		
	8 a.m.	A. Cu.	4		
	10 a.m.	Cu. N	9		
	12 p.m.	Cu.	6		
	2 p.m.	Cu. N	9		
	4 p.m.	Cu. N	10		
	6 p.m.	Cu. N	10		
	8 p.m.	Cl. Cu.	6	0.0	
2.....	12 a.m.	Cl. Cu.	6		
	4 a.m.	Cl. Cu.	5		
	6 a.m.	A. Cu.	4		
	8 a.m.	Cl. Cu.	4		
	10 a.m.	Cl. Cu.	4		
	12 p.m.	Cl. Cu.	6		
	2 p.m.	Cu. N	6		
	4 p.m.	Cu. N	10		Thunderstorm.
	6 p.m.	Cu. N	10		Rain.
	8 p.m.	Cu. N	10	0.08	Do.
3.....	12 a.m.	Cu. N	8		
	4 a.m.	A. Cu.	5		
	6 a.m.	A. Cu.	5		
	8 a.m.	Cu.	5		
	10 a.m.	Cu.	4		
	12 p.m.	Cu. N	8		
	2 p.m.	Cu. N	10		Rain; thunderstorm.
	4 p.m.	S. Cu.	10		Rain.
	6 p.m.	S. Cu.	10		Drizzle; fog.
	8 p.m.	S. Cu.	10	0.10	Drizzle.
4.....	12 a.m.	S. Cu.	8		
	4 a.m.	Cl. Cu.	7		Fog.
	6 a.m.	Cl.	3		Do.
	8 a.m.	Cl. Cu.	8		

Clouds, fog, and rain at Baguio, province of Benguet—Continued.

OCTOBER, 1900—Continued.

Day.	Clouds.			Rainfall.	Remarks.
	Hour.	Form.	Amount (scale, 0-10).		
				<i>Inches.</i>	
4.....	10 a.m.	S. Cu	9		Rain.
	12 p.m.	Cu. N.	6		
	2 p.m.	S. Cu	10		Do.
	4 p.m.	S. Cu	10		Do.
	6 p.m.	S. Cu	10		Do.
	8 p.m.	S. Cu	10	0.77	Drizzle.
5.....	12 a.m.	S. Cu	10		Do.
	4 a.m.	S. Cu	10		Do.
	6 a.m.	S. Cu	10		Rain.
	8 a.m.	A. Cu	6		
	10 a.m.	Cu. N.	8		
	12 p.m.	Cu. N.	9		
	2 p.m.	Cu. N.	9		Do.
	4 p.m.	Cu. N.	10		
	6 p.m.	S. Cu	10		Drizzle.
	8 p.m.	S. Cu	9	0.79	
6.....	12 a.m.	Cu. N.	7		
	4 a.m.	Cu. N.	8		
	6 a.m.	Cu. N.	9		
	8 a.m.	S. Cu	8		
	10 a.m.	S. Cu	9		
	12 p.m.	A. Cu	6		
	2 p.m.	Cu. N.	9		
	4 p.m.	Cu. N.	10		Rain.
	6 p.m.	Cu. N.	10		
	8 p.m.	Cu. N.	10		
7.....	12 a.m.	S. Cu	10		
	4 a.m.	S. Cu	10	0.20	
	6 a.m.	S. Cu	10		
	8 a.m.	S. Cu	10		Drizzle.
	10 a.m.	Cu. N.	9		
	12 p.m.	S. Cu	8		
	2 p.m.	S. Cu	7		
	4 p.m.	S. Cu	9		
	6 p.m.	S. Cu	9		
	8 p.m.	A. Cu	8	0.10	
8.....	12 a.m.	S. Cu	8		
	4 a.m.	S. Cu	8		At 3 a.m., slight earthquake, short duration.
	6 a.m.	S. Cu	7		
	8 a.m.	Cl. Cu	7		
	10 a.m.	A. Cu	5		
	12 p.m.	Cu. N.	9		
	2 p.m.	Cu. N.	10		Rain; thunderstorm.
	4 p.m.	S. Cu	10		Do.
	6 p.m.	S. Cu	10		Rain.
	8 p.m.	S. Cu	10	0.06	
9.....	12 a.m.	Cu	5		
	4 a.m.	Cu	4		Fog.
	6 a.m.	A. Cu	4		Do.
	8 a.m.	Cl	2		
	10 a.m.	Cu	1		
	12 p.m.	Cu. N.	7		
	2 p.m.	S. Cu	9		Drizzle.
	4 p.m.	S. Cu	10		Rain; thunderstorm; fog.
	6 p.m.	S. Cu	9		Rain.
	8 p.m.	Cl. Cu	3	1.18	
10.....	12 a.m.	Cu	3		
	4 a.m.	Cl	2		Fog.
	6 a.m.	Cl	1		Do.
	8 a.m.	Cu	1		
	10 a.m.	Cu	2		
	12 p.m.	Cu. N.	6		
	2 p.m.	Cu	5		
	4 p.m.	Cu	6		
	6 p.m.	Cu. N.	7		Do.
	8 p.m.	Cl	2	0.51	
11.....	12 a.m.	Cu	2		Do.
	4 a.m.	Cu	1		Do.
	6 a.m.	Cu	1		Do.
	8 a.m.	Cu	1		
	10 a.m.	Cu	2		
	12 p.m.	Cu. N.	5		
	2 p.m.	Cu. N.	7		
	4 p.m.	Cu	4		
	6 p.m.	Cl	3		Do.
	8 p.m.	Cu	3	0.0	Do.

Clouds, fog, and rain at Baguio, province of Benguet—Continued.

OCTOBER, 1900—Continued.

Day.	Clouds.			Rainfall.	Remarks.
	Hour.	Form.	Amount (scale, 0-10).		
12.....	12 a.m.	Cu.....	2	<i>Inches.</i>	
	4 a.m.	Cl.....	1		
	6 a.m.	Cl. Cu.....	2		
	8 a.m.	Cl. Cu.....	2		
	10 a.m.	Cu.....	2		
	12 p.m.	Cu. N.....	7		
	2 p.m.	Cu. N.....	7		
	4 p.m.	Cu. N.....	8		
	6 p.m.	Cu. N.....	6		
	8 p.m.	Cu.....	3	0.0	
13.....	12 a.m.	Cu.....	4		
	4 a.m.	Cu.....	3		
	6 a.m.	Cl. Cu.....	4		
	8 a.m.	Cl. Cu.....	3		
	10 a.m.	Cu.....	3		
	12 p.m.	Cu.....	5		
	2 p.m.	Cu. N.....	6		
	4 p.m.	Cu.....	5		
	6 p.m.	Cu. N.....	6		
	8 p.m.	Cu. N.....	6	0.20	
14.....	12 a.m.	Cl. Cu.....	5		
	4 a.m.	Cl. Cu.....	5		
	6 a.m.	Cl. Cu.....	4		
	8 a.m.	Cl. Cu.....	4		
	10 a.m.	Cl. Cu.....	4		
	12 p.m.	Cu.....	5		
	2 p.m.	A. Cu.....	3		
	4 p.m.	Cl. Cu.....	4		
	6 p.m.	Cl. Cu.....	4		
	8 p.m.	Cl. Cu.....	3	0.0	
15.....	12 a.m.	Cu.....	3		
	4 a.m.	Cu.....	3		
	6 a.m.	Cl.....	2		
	8 a.m.	Cl.....	2		
	10 a.m.	Cu.....	3		
	12 p.m.	Cu.....	4		
	2 p.m.	Cu.....	5		
	4 p.m.	Cu.....	3		
	6 p.m.	Cu.....	4		
	8 p.m.	Cu. N.....	6	0.0	
16.....	12 a.m.	Cu. N.....	7		
	4 a.m.	Cu. N.....	8		Rain.
	6 a.m.	Cu. N.....	7		
	8 a.m.	Cu. N.....	9		Drizzle.
	10 a.m.	S. Cu.....	8		
	12 p.m.	Cu. N.....	10		
	2 p.m.	S. Cu.....	10		Do.
	4 p.m.	Cu. N.....	10		Rain; thunderstorm.
	6 p.m.	S. Cu.....	10		Rain.
	8 p.m.	S. Cu.....	9	0.08	Drizzle.
17.....	12 a.m.	Cu.....	6		
	4 a.m.	Cu.....	6		
	6 a.m.	Cl. Cu.....	6		
	8 a.m.	Cl.....	3		
	10 a.m.	Cu.....	3		
	12 p.m.	S. Cu.....	10		Rain.
	2 p.m.	Cu. N.....	10		
	4 p.m.	Cu. N.....	5		
	6 p.m.	Cu. N.....	6		Fog.
	8 p.m.	Cu. N.....	6	0.63	
18.....	12 a.m.	Cu.....	4		At 2 a. m., slight earthquake; duration, 10 seconds.
	4 a.m.	Cu.....	4		
	6 a.m.	Cl.....	2		
	8 a.m.	Cl. Cu.....	4		
	10 a.m.	Cu.....	5		
	12 p.m.	Cu. N.....	7		
	2 p.m.	Cu.....	4		
	4 p.m.	Cu.....	3		
	6 p.m.	Cu.....	2		
	8 p.m.	Cl.....	1	0.26	
19.....	12 a.m.	Cu.....	2		
	4 a.m.	Cu.....	2		
	6 a.m.	Cl. Cu.....	1		
	8 a.m.	A. Cu.....	2		
	10 a.m.	Cu.....	2		
	12 p.m.	Cu.....	4		
	2 p.m.	Cu.....	3		
	4 p.m.	Cu.....	3		

Clouds, fog, and rain at Baguio, province of Benguet—Continued.

OCTOBER, 1900—Continued.

Day.	Clouds.			Rainfall.	Remarks.
	Hour.	Form.	Amount (scale, 0-10).		
				<i>Inches.</i>	
19.....	4 p.m.	Cu. N.	7		Fog. Do.
	6 p.m.	Cu.	4		
	8 p.m.	Cu.	2	0.0	
20.....	12 a.m.	Cu.	3		Do. Do.
	4 a.m.	Cu.	3		
	6 a.m.	A. Cu.	4		
	8 a.m.	Cl. Cu.	3		
	10 a.m.	Cu.	3		
	12 p.m.	Cu.	6		
	2 p.m.	Cu.	6		
	4 p.m.	Cl. Cu.	4		
	6 p.m.	Cu.	5		
	8 p.m.		0	0.0	Do. Do.
21.....	12 a.m.	Cu.	5		Fog. Do. Do.
	4 a.m.	Cu.	5		
	6 a.m.	Cl.	2		
	8 a.m.	Cl. Cu.	3		
	10 a.m.	Cl. Cu.	5		
	12 p.m.	Cu.	5		
	2 p.m.	Cu.	4		
	4 p.m.	Cu.	6		
	6 p.m.	Cu. N.	9		
	8 p.m.	S. Cu.	10	0.0	
22.....	12 a.m.		0		
	4 a.m.		0		
	6 a.m.	Cu.	2		
	8 a.m.	Cl.	2		
	10 a.m.	Cu.	3		
	12 p.m.	Cu. N.	9		
	2 p.m.	Cu.	7		
	4 p.m.	Cu.	5		
	6 p.m.	Cu.	2		
	8 p.m.	Cu.	3	0.0	
23.....	12 a.m.	Cl.	2		Fog. Do.
	4 a.m.		0		
	6 a.m.	Cl.	1		
	8 a.m.	Cl.	1		
	10 a.m.	Cu.	5		
	12 p.m.	Cu. N.	8		
	2 p.m.	Cu. N.	7		
	4 p.m.	Cu.	5		
	6 p.m.	Cu. N.	6		
	8 p.m.	Cu.	2	0.0	
24.....	12 a.m.	Cu.	1		
	4 a.m.	Cl.	1		
	6 a.m.	Cl.	1		
	8 a.m.	Cl. Cu.	3		
	10 a.m.	Cu.	5		
	12 p.m.	Cu.	4		
	2 p.m.	Cu. N.	6		
	4 p.m.	Cu. N.	7		
	6 p.m.	Cu.	1		
	8 p.m.	Cu.	1	0.0	
25.....	12 a.m.	Cu.	1		Fog. Do.
	4 a.m.		0		
	6 a.m.	Cl.	1		
	8 a.m.	Cl.	1		
	10 a.m.	Cu.	1		
	12 p.m.	Cu.	2		
	2 p.m.	Cu.	2		
	4 p.m.	Cu.	2		
	6 p.m.	Cl. Cu.	5		
	8 p.m.	Cu.	4	0.0	
26.....	12 a.m.	Cu.	2		
	4 a.m.	Cu.	2		
	6 a.m.	Cl. Cu.	2		
	8 a.m.	Cu.	2		
	10 a.m.	Cl. Cu.	4		
	12 p.m.	Cu.	5		
	2 p.m.	Cu.	4		
	4 p.m.	Cl. Cu.	4		
	6 p.m.	Cu.	3		
	8 p.m.	Cu.	1	0.0	
27.....	12 a.m.	Cu.	1		
	4 a.m.	Cl.	2		
	6 a.m.	Cl. Cu.	2		
	8 a.m.	Cl.	2		

Clouds, fog, and rain at Baguio, province of Benguet—Continued.

OCTOBER, 1900—Continued.

Day.	Clouds.			Rainfall.	Remarks.
	Hour.	Form.	Amount. (scale, 0-10).		
27.....	10 a. m.	Cl	1	<i>Inches.</i>	
	12 p. m.	Cu	5		
	2 p. m.	Cu	6		
	4 p. m.	Cu	5		
	6 p. m.	Cl. Cu	4		
	8 p. m.	Cu	4	0.0	
28.....	12 a. m.	Cl	2		
	4 a. m.	Cl	2		
	6 a. m.	Cl	2		
	8 a. m.	Cl	2		
	10 a. m.	Cu	6		
	12 p. m.	Cu. N.	6		
	2 p. m.	Cu. N.	5		
	4 p. m.	Cu	4		
	6 p. m.	Cu. N.	5		
	8 p. m.	Cl	2	0.0	
29.....	12 a. m.	Cu	3		
	4 a. m.	Cu	3		Fog.
	6 a. m.	Cl	1		Do.
	8 a. m.	Cl	2		
	10 a. m.	Cu	2		
	12 p. m.	Cl. Cu	4		
	2 p. m.	Cu	7		
	4 p. m.	Cu. N.	7		
	6 p. m.	Cu. N.	9		
	8 p. m.	Cu	2	0.0	
30.....	12 a. m.	Cu	1		
	4 a. m.	Cu	2		Do.
	6 a. m.	Cl	2		Do.
	8 a. m.	Cl	1		
	10 a. m.	Cu	3		
	12 p. m.	Cu	3		
	2 p. m.	Cu	5		
	4 p. m.	Cu	5		
	6 p. m.	Cu. N.	7		
	8 p. m.	Cu	2	0.0	
31.....	12 a. m.	Cu	5		
	4 a. m.	Cu	5		Do.
	6 a. m.	Cl. Cu	6		Do.
	8 a. m.	A. Cu	4		
	10 a. m.	Cl. Cu	3		
	12 p. m.	Cl. Cu	4		
	2 p. m.	Cu. N.	3		
	4 p. m.	Cl. Cu	4		
	6 p. m.	Cu	6		
	8 p. m.	Cl. Cu	9	0.0	
Total rainfall for month.....				4.96	

Frequency of the wind, October, 1900.

Day.	N. to NNW.	NW. to WNW.	W. to WSW.	SW. to SSW.	S. to SSE.	SE. to ESE.	E. to ENE.	NE. to NNE.	Calm.
1					1	2	5		2
2					1		9		
3		1	4		1	2	1		1
4	2	2	4			1			1
5					3	2	1		4
6						1	8		1
7						3	7		
8					2	4			
9			4				2		4
10			1		2		2		4
11		1	1	1	1		2		4
12		2	3	1		1			3
13					2	2	3		3
14						3	6		1
15						2	8		
16					2	1	6		1
17		1	3						6
18	4	4							2
19		3	1	1					5
20		4	2						4
21			7						3
22			4						6
23		2	2			1			5
24		1	2	1		1			5
25						5	2		3
26					2	4	1		3
27						7	2		1
28			3	3			1		3
29			3	2	1			1	3
30		2	1		1	2			4
31			2		1	1	1		5
Mean	0.19	0.74	1.64	0.29	0.64	1.46	2.28	0.03	.....

Daily variation of the temperature at Manila, for the months of August, September, and October, 1900.

Day.	August.	September.	October.	Day.	August.	September.	October.
	°	°	°		°	°	°
1	18.0	15.6	12.7	19	8.1	12.9	15.6
2	12.1	18.2	16.3	20	7.5	15.2	14.9
3	14.2	5.2	16.6	21	9.3	13.1	16.0
4	11.4	11.5	13.1	22	10.0	14.2	15.8
5	16.4	14.5	10.2	23	7.0	14.3	17.1
6	17.2	8.9	4.7	24	8.8	10.0	15.9
7	13.1	7.6	15.8	25	7.3	11.8	20.1
8	13.6	10.1	18.6	26	12.6	13.1	11.8
9	13.5	11.9	17.0	27	14.6	16.0	10.7
10	13.8	10.8	18.0	28	8.4	11.6	18.1
11	11.5	12.8	15.4	29	15.1	11.6	18.0
12	10.7	10.8	13.6	30	14.0	12.0	15.9
13	9.5	8.2	9.5	31	15.9		10.9
14	6.8	13.0	17.5				
15	9.1	9.1	14.9	Mean variation:			
16	11.1	7.8	14.1	Manila	11.3	11.5	15.0
17	4.9	13.3	17.2	Bagulo	5.46	7.88	10.28
18	10.4	9.4	15.8				

Comparison of the temperature at Manila and Baguio.

AUGUST, 1900.

Day.	Extreme readings.					
	Maxima.			Minima.		
	Manila.	Baguio.	Difference.	Manila.	Baguio.	Difference.
	°	°	°	°	°	°
1	88.6			75.6		
2	88.5			76.4		
3	90.3	72.7	17.6	76.1		
4	89.1	73.0	16.1	77.7		
5	93.1	75.6	17.5	76.7	64.9	11.8
6	95.3	76.8	18.5	78.1	64.2	13.9
7	89.1	72.3	16.8	76.0	61.2	14.8
8	90.4	71.6	18.8	76.8	63.0	13.8
9	88.7	72.6	16.7	75.2	64.0	11.2
10	89.8	70.7	19.1	76.0	63.0	13.0
11	87.1	72.0	15.1	75.6	64.0	11.6
12	86.4	68.2	18.2	75.7	63.3	12.4
13	84.8	70.5	14.3	75.3	65.3	9.5
14	82.1	69.6	12.5	75.3	63.9	11.4
15	84.0	68.9	17.1	74.9	61.9	13.0
16	84.6	67.6	17.0	73.5	64.0	9.5
17	83.9	66.2	17.7	79.0	64.8	14.2
18	86.0	65.7	20.3	75.6	64.4	11.2
19	82.4	67.5	14.9	74.3	64.8	9.5
20	84.6	66.2	18.4	77.1	65.3	11.8
21	83.1	67.5	20.6	78.8	65.8	13.0
22	88.0	68.5	19.4	77.9	65.3	12.7
23	84.9	65.8	20.5	77.5	64.4	13.5
24	86.3	65.8	20.5	74.6	62.6	14.9
25	81.9	65.7	16.2	74.6	62.6	12.0
26	85.9	63.9	17.0	73.3	63.0	10.3
27	89.1	64.9	24.2	74.5	62.6	11.9
28	82.0	66.2	15.8	73.6	61.7	11.9
29	87.5	71.1	16.4	72.4	59.0	13.4
30	83.0	68.7	19.3	74.0	63.3	10.7
31	89.7	70.9	18.8	73.8	62.1	11.7
Mean	87.0	69.3	17.8	75.8	63.5	12.3

SEPTEMBER, 1900.

	°	°	°	°	°	°
1	89.6	72	17.6	74	61.9	12.1
2	88.8	75.9	12.9	75.6	62.2	13.4
3	80	74.8	5.2	74.8	62.2	12.6
4	85.6	76.6	9.0	74.1	64.8	9.3
5	90.0	73.4	16.6	75.5	62.6	12.9
6	79.6	70.2	9.4	75.7	63.5	12.2
7	82.1	70.5	11.6	74.3	63.0	11.3
8	83.1	72.5	10.6	73.0	65.8	7.2
9	84.8	64.8	20.0	72.9	63.9	9.0
10	86.5	69.6	6.9	75.7	63.9	11.8
11	88.3	71.4	16.9	77.3	63.3	14.0
12	87.6	70.7	16.9	77.3	62.6	14.7
13	86.0	67.6	18.4	77.8	64.0	13.8
14	89.8	68.4	21.4	76.8	62.6	14.2
15	87.1	69.6	17.5	78.0	61.7	16.3
16	87.6	68.4	19.2	78.8	62.8	16.0
17	87.3	69.3	18.0	74.0	62.4	11.6
18	86.7	69.4	17.3	77.3	64.0	13.3
19	88.4	68.7	19.7	75.5	64.8	10.7
20	90.5	72.2	18.3	75.3	62.6	12.7
21	89.3	71.6	17.7	76.2	62.6	13.6
22	90.2	71.6	18.6	76.0	62.8	13.2
23	87.0	69.6	17.4	72.7	61.2	11.5
24	84.4	71.2	13.2	74.4	63.0	11.4
25	87.0	74.1	12.9	75.2	62.4	12.8
26	89.5	72.3	17.2	76.4	64.4	12.0
27	91.1	72.7	18.4	75.1	63.7	11.4
28	88.1	71.2	16.9	76.5	64.9	11.6
29	87.8	73.0	14.8	76.2	64.0	12.2
30	87.0	72.0	15.0	75.0	63.3	11.7
Mean	87.0	71.5	15.5	75.6	63.2	12.4

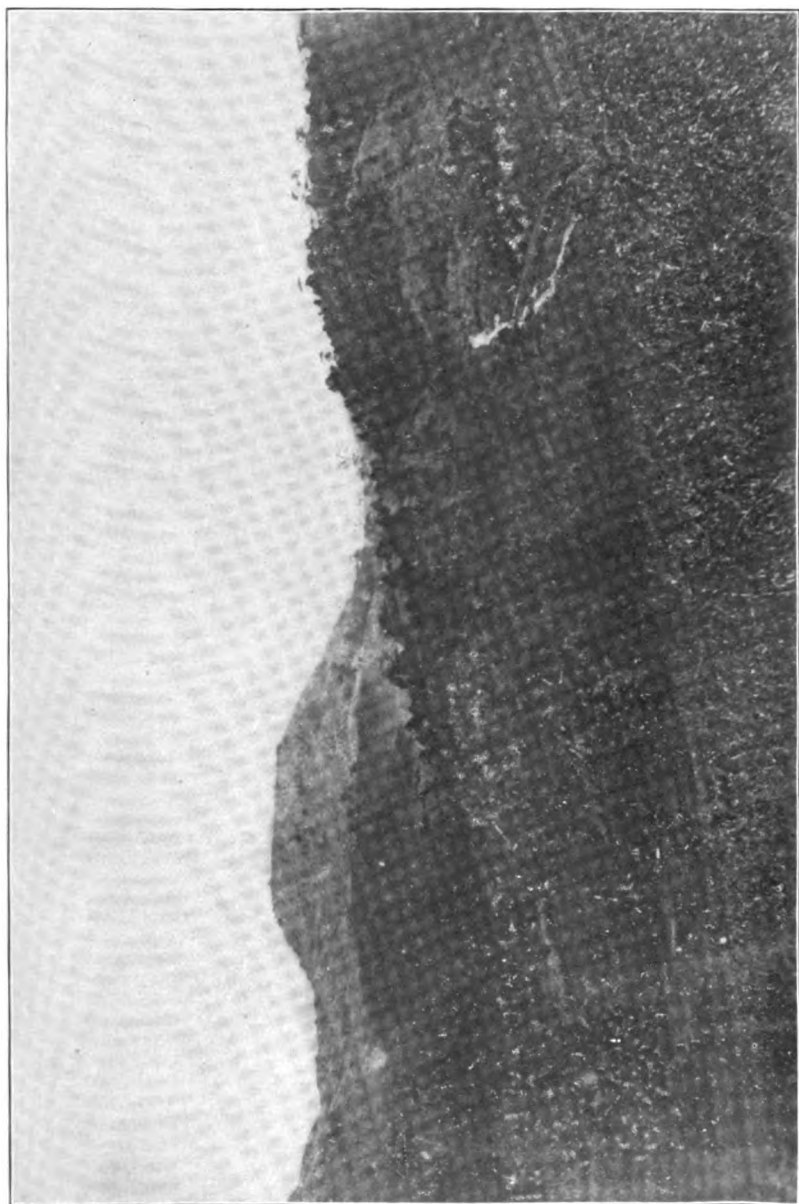
Comparison of the temperature at Manila and Baguio—Continued.

OCTOBER, 1900.

Day.	Extreme readings.					
	Maxima.			Minima.		
	Manila.	Baguio.	Difference.	Manila.	Baguio.	Difference.
1	86.7	74.3	12.4	74.0	64.0	10.0
2	89.4	72.3	17.1	78.1	64.8	8.3
3	88.6	72.5	16.1	72.0	64.0	8.0
4	87.2	69.8	17.4	74.1	62.6	11.5
5	83.0	70.7	12.3	72.8	68.7	9.1
6	78.0	71.2	16.8	73.3	62.1	11.2
7	89.3	73.0	16.3	73.5	64.0	9.5
8	91.8	72.9	18.9	73.2	63.1	10.1
9	88.7	72.7	16.0	71.7	68.5	8.2
10	90.1	73.4	16.7	72.1	59.9	12.2
11	89.5	72.7	16.8	74.1	60.1	14.0
12	89.2	72.5	13.7	75.6	61.7	13.9
13	82.0	78.4	8.6	72.5	63.0	9.5
14	89.7	74.8	14.9	72.2	62.6	9.6
15	87.3	74.3	13.0	72.4	63.5	8.9
16	86.8	70.2	16.6	72.7	62.6	10.1
17	90.2	70.9	19.3	73.0	61.5	11.5
18	89.0	71.2	17.8	73.2	61.5	11.7
19	88.2	72.5	15.7	72.6	56.8	15.8
20	88.2	69.3	18.9	71.3	62.2	9.1
21	88.2	70.2	18.0	72.2	62.6	9.6
22	88.8	71.2	17.6	73.0	60.4	12.6
23	89.8	72.8	17.5	72.7	62.6	10.1
24	89.7	73.4	16.3	73.8	64.0	9.8
25	92.6	75.9	16.7	72.5	62.6	9.9
26	88.4	74.3	14.1	76.6	64.4	12.2
27	83.4	75.7	7.7	72.6	64.4	8.2
28	90.2	73.0	17.2	72.1	62.2	9.9
29	89.9	70.2	19.7	71.9	57.6	14.3
30	88.0	71.6	16.4	72.1	57.9	14.2
31	85.4	73.2	12.2	74.6	59.9	14.7
Mean	88.0	72.4	15.6	73.0	62.1	10.9

Comparison of the relative humidity at Baguio and Manila for the months of August, September, and October, 1900.

Day.	August.		September.		October.	
	Baguio.	Manila.	Baguio.	Manila.	Baguio.	Manila.
1			85.1	85.8	83.1	89.0
2			81.8	85.8	86.2	85.4
3	86.0	81.0	82.7	93.3	89.2	81.7
4	89.1	85.5	83.7	90.9	92.0	88.2
5	83.6	84.2	83.5	84.5	90.4	94.1
6	84.7	82.0	88.5	91.0	85.9	96.4
7	86.1	83.6	87.1	92.5	86.1	81.8
8	87.3	79.4	88.4	90.5	88.9	83.7
9	88.4	85.2	95.6	86.0	86.4	81.4
10	89.8	88.5	90.2	87.3	82.6	79.0
11	86.7	88.9	89.9	86.5	83.9	77.7
12	91.3	89.5	92.4	87.9	83.5	86.6
13	90.0	95.0	94.4	85.8	80.1	88.5
14	93.8	94.8	93.6	82.8	74.6	81.6
15	91.3	93.1	90.8	83.7	74.2	88.2
16	91.7	90.0	92.2	83.0	84.2	86.1
17	94.2	88.5	92.0	84.5	85.4	80.8
18	97.3	88.7	94.1	89.9	82.1	80.8
19	96.1	94.9	92.8	87.8	84.4	81.5
20	95.4	87.1	93.6	83.8	84.1	81.6
21	94.3	80.7	92.1	78.3	84.0	79.6
22	96.0	86.1	91.5	80.3	85.9	80.9
23	97.4	87.4	91.0	86.8	87.0	81.4
24	97.0	86.7	90.8	91.5	86.1	85.4
25	93.0	91.7	90.6	89.7	74.5	78.8
26	95.2	84.4	89.4	85.3	70.2	80.3
27	95.0	82.5	89.7	82.0	75.8	91.1
28	93.4	90.2	89.3	79.1	81.9	77.1
29	90.4	79.7	86.1	86.3	80.9	72.6
30	92.4	86.2	84.2	86.9	83.1	75.7
31	90.4	86.8			83.1	83.2
Mean	91.6	86.9	89.4	86.3	83.1	83.2



MIRADOR (OUTLOOK) MOUNTAIN, NEAR BAGUIÓ, ON WHICH THE JESUITS WISH TO ERECT A METEOROLOGICAL OBSERVATORY; SAID
TO COMMAND A VIEW OF MANILA WHEN THE AIR IS SUFFICIENTLY CLEAR.

(Photograph by Otto Scheerer.)

Comparison of the rainfall at Manila and Baguio for the months of August, September, and October, 1900.

[In inches.]

Day.	August.		September.		October.	
	Manila.	Baguio.	Manila.	Baguio.	Manila.	Baguio.
1				0.71	0.38	
2			0.4		.08	0.08
3			.39		.83	.10
4			.08	.06	.22	.77
5			.04		1.39	.79
6			.22	.06	.72	.2
7			2.69	.31		.1
8		0.09	3.08	.83	.02	.06
9	0.52	.24	1.84	3.74		1.18
10	.2	.21	.19	1.10	.02	.51
11	2.01	.13		.10		
12	2.46	.89	.06	.28	.18	
13	8.81	.12	.01	.33	.62	.2
14	2.69	.59		.30		
15	3.32	1.88	.01	.55	1.02	
16	1.51	.87	.67	.10		.08
17	2.42	.98	.22	.67		.63
18	3.71	2.87	.64	1.34	.11	.26
19	.67	3.07	.15	.30		
20	.01	5.12	.01	.04		
21	.56	5.12		.98		
22	.17	2.6		.26		
23	.25	3.15	.12	.10		
24	2.31	2.56	.39	.18	.28	
25	.19	2.32	.17	.02		
26	.82	.88		.20		
27	.22	1.38		.06	.77	
28	.07	1.1		.04	.01	
29	.84	.75				
30	.8	.04	.04		.01	
31		1.18			.29	
Total	28.50	37.04	11.32	12.16	6.90	4.96
Difference		8.54		.84	1.94	
Mean	1.14	1.48	.38	.41	.22	.16
Difference		.34		.03	.06	

An examination of the tables shows that the climatic conditions at Benguet are remarkably favorable, especially when one stops to consider that the months of July, August, and September are the worst of the year.

It appears that the temperature is never high, the probable maximum being 77° F.; nor is it ever very low, the minimum for the year being about 45°. The thermometer falls to from 65° to 59° during the nights of the hottest season. The temperature is very uniform, the mean daily variation for the three months having been about 5° less than that at Manila. The maximum temperature may occur from 12 to 4 p. m., although it is seldom later than 2 p. m. The minimum temperature usually occurs from 4 to 6 in the morning, although on a few days it was registered between 6 and 8 in the evening. The average temperature during the three months at 12 o'clock midnight was 64.6°; at 4 a. m. it was 63.5°; at 6 a. m., 62.9°; at 8 a. m., 67.1°; at 10 a. m., 69.2°; at 12 noon, 70.2°; at 2 p. m., 69.5°; at 4 p. m., 68.5°; at 6 p. m., 66.5°; at 8 p. m., 65.8°. The mean temperature for August was 65.91°; for September, 66.94°; for October, 67.41°. It would be difficult to imagine a locality with a more satisfactory temperature.

The average relative humidity was higher than at Manila during the month of August and September, and practically the same during the month of October, although the maximum recorded the last month at Baguio was 4.4 per cent lower than the maximum at Manila.

The comparatively high relative humidity at Baguio during August and September was due in some measure to the unusual frequency of the typhoons which made themselves felt in northern Luzon during this period. The report of the Spanish commission shows that the relative humidity for the year is materially lower at Baguio than at Manila.

Although our visit was made at the height of the rainy season, there was very little rain during our stay, and the short showers which did occur usually came between 4 and 7 p. m., while the sun shone brightly throughout the morning and early part of the afternoon. Rains lasting throughout the entire day are decidedly exceptional at Baguio, and occur for the most part when a typhoon is making itself felt.

Fogs were experienced several times during the late afternoon showers or the early morning hours. The morning fogs invariably disappeared at sunrise. The report of the Spanish commission shows that dense fogs of long duration are surprisingly exceptional at this point, when one considers its altitude.

Although our meteorological observer took an anemometer with him, the house where we established him is so sheltered by hills as not to afford favorable opportunity for ascertaining accurately the direction or velocity of the wind. As soon as possible he will erect a mast for the anemometer on the summit of a neighboring elevation, and will then obtain anemometric records.

Briefly, the climate of the highlands of Benguet is very similar to that of northern New England in late spring or early summer. There is every reason to believe that white women and children would thrive there. We found that even mestizo children, whose faces never show a trace of color in the lowlands, had bright red cheeks.

We consider it certain that if the province of Benguet were put in quick communication with Manila thousands of dollars and hundreds of valuable lives would be saved every year. Baguio would be an excellent location for a reserve camp, from which troops could be distributed throughout the archipelago as needed. It would also be an admirable place for the acclimatization of newly arrived men.

Soldiers suffering from the effects of unfavorable climatic conditions could be sent there to recuperate before they had actually broken down, and such a measure would prove most economical in the end. On the other hand, the wounded and the sick could be given an opportunity to recuperate under the most favorable circumstances.

There is abundant pasturage for cattle, and experience has shown that they do extremely well in this region.

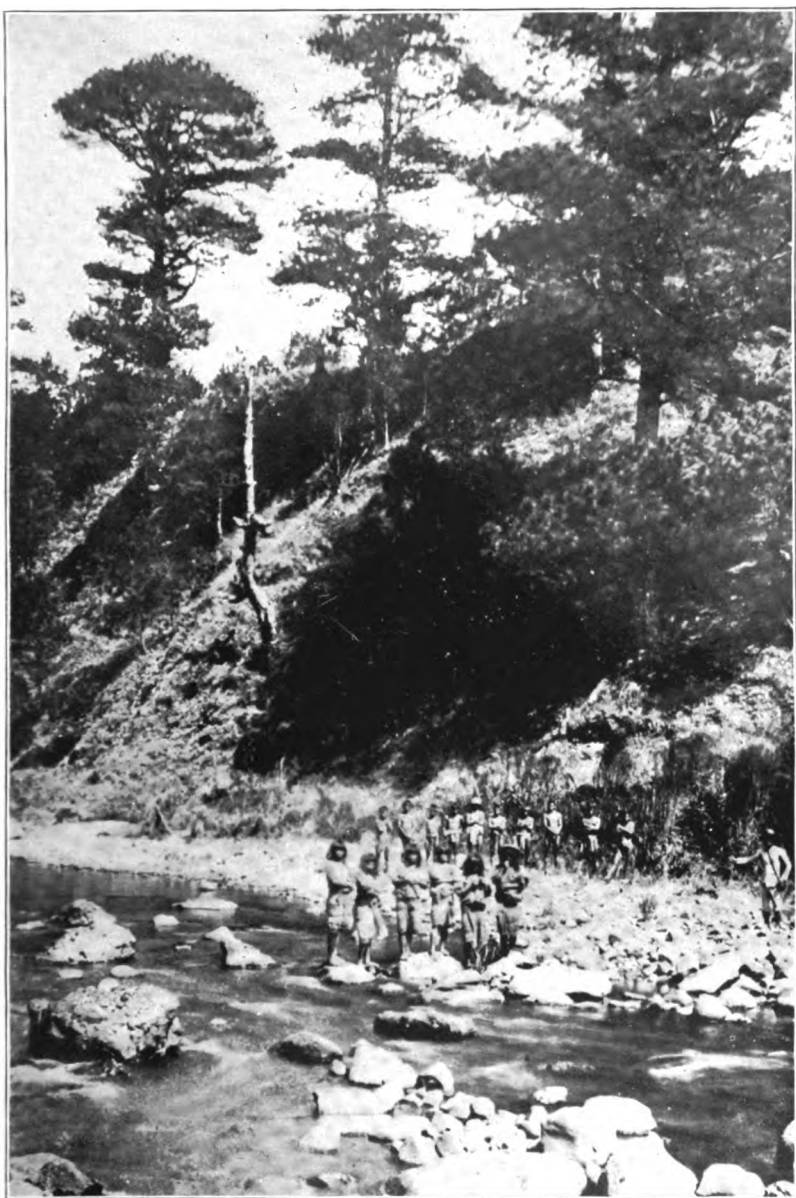
It is certain that many of the fruits, vegetables, and grains of the temperate zone can be grown to advantage, especially if the soil is artificially enriched.¹

The Igorrotes are hard working, honest, and peaceable. They always enjoyed an excellent reputation while subject to Spanish sovereignty and have continued to deserve it since our occupation of their province.²

It has been objected that Benguet is too remote from Manila, and is so isolated that, under existing conditions, it would be dangerous to attempt to live there or to construct government buildings. In reply to the first objection, it is sufficient to remark that it is the nearest

¹ See Exhibit F, Agricultural Notes on Benguet.

² See Exhibit G, The Igorrotes of Benguet.



VALLEY OF THE RIVER AGNO, BENGUET, SHOWING PINE TREES.

(Photograph by Otto Scheerer.)



UNDER THE PINES AT BAGUIÓ.
(Photograph taken by an Igorrote.)



IGORROTE WOMAN AND GIRL OF THE BETTER CLASS, SHOWING THE USUAL DRESS.
(Photograph by Otto Scheerer.)

available point, and that the trip from Manila to Dagupan by rail or by sea and by carriage road from Dagupan to Baguio does not present any very formidable difficulties. When railroad connection has been established for the entire distance it will become possible to make the trip in a little less than twelve hours at a running speed of only 15 miles per hour. In reply to the second objection, attention may properly be called to General Luna's plan for making this province a final retreat on account of the ease with which the difficult trails leading to it can be defended. It is hard to see how a hostile force of any size could hope successfully to invade it. Such a force would be far from any base of supplies, friendly Igorrotes would be sure to give warning of its approach, and when defeated, as every insurgent force is when it attempts to attack our troops, there would be no town at hand into which its members might steal in order to hide themselves among their peaceable fellows. The scattering Igorrote houses would afford no protection to outsiders. It is scarcely too much to say that there has never been a hostile shot fired in this province, where American miners have been at work undisturbed for nearly a year, and the possibility of any serious attack from insurgents or ladrones is so remote as to be hardly worth taking into consideration. We believe it would be perfectly safe to begin the construction of buildings immediately.

Timber for this purpose should be cut during the dry season, as it lasts much better when felled at this time than it does if cut after the rains have commenced.

Work should immediately be begun on a good highway connecting Baguio with Dagupan. We are informed that the road from Dagupan to Pozo Rubio is in fairly good shape, so that a new road would be necessary only from this point to Baguio, a distance of about 30 miles. We are strongly of the opinion that a railway from Dagupan or Sual to Baguio should be completed at the earliest practicable time. When this is done Benguet will become an ideal health resort, readily accessible to the inhabitants of the archipelago and to those of the China coast as well. In our judgment the political and military capital of these islands should be established there, after a satisfactory line of quick communication has been completed.

Very respectfully,

DEAN C. WORCESTER.
LUKE E. WRIGHT.

EXHIBIT E.

Statement of Frank S. Bourns, M. D., late major and chief surgeon U. S. Volunteers, late professor of pathology and bacteriology at the Southern Medical College, Atlanta, Ga., and late chief health officer of Manila, as to the suitableness of the Benguet region for a health resort.

Hon. WILLIAM H. TAFT,
President of the United States Philippine Commission.

SIR: In reply to your request for an expression of my professional opinion as to the suitableness of the Benguet region for a health resort, I beg to submit the following statement:

I had heard much about this region to the effect that it was but semi tropical in climate and vegetation; but had I not seen it myself I would not have believed it to be what it really is.

I have visited most of the islands of this archipelago, at times ascending the mountains, but have always found them covered with a tropical vegetation, although the temperature, of course, falls as the altitude increases.

In the Benguet district, about Baguio and Trinidad, the appearance of the country is decidedly that of a temperate region, the tropical jungle giving way to pine forests and low grass. The temperature of both air and water is delightful, being like that of northern Michigan in summer. At night the air is decidedly bracing and invigorating, one or two thicknesses of blankets being required for comfort while sleeping.

I observed, too, that, despite the greater rarity of the atmosphere, severe exertion was not followed by the same degree of fatigue as is experienced at sea level.

I consider the Benguet region (probably including also Lepanto and Abra) the most healthful in the Philippines, and, in my opinion, it will prove of the highest value in the treatment of disease. I believe that a health resort there would serve all the purposes of a similar institution in Japan, and that it would make a satisfactory convalescent station for by far the greater part of those who are now sent home to recover their health.

The advantages of pure, cool air and water, where the country will permit of the production of the ordinary vegetables of the temperate zone, and where cattle may be kept to furnish fresh milk and butter, can not be overestimated, especially when these things are to be found so near the capital of this tropical country.

During my stay in Benguet I saw what I have never seen in any other region of the archipelago, red-cheeked mestizo children. If this may be taken as evidence that children during the growing period retain vigorous health, it is a matter of much importance, as this question is one of great moment in connection with the residence of white women and children in this country.

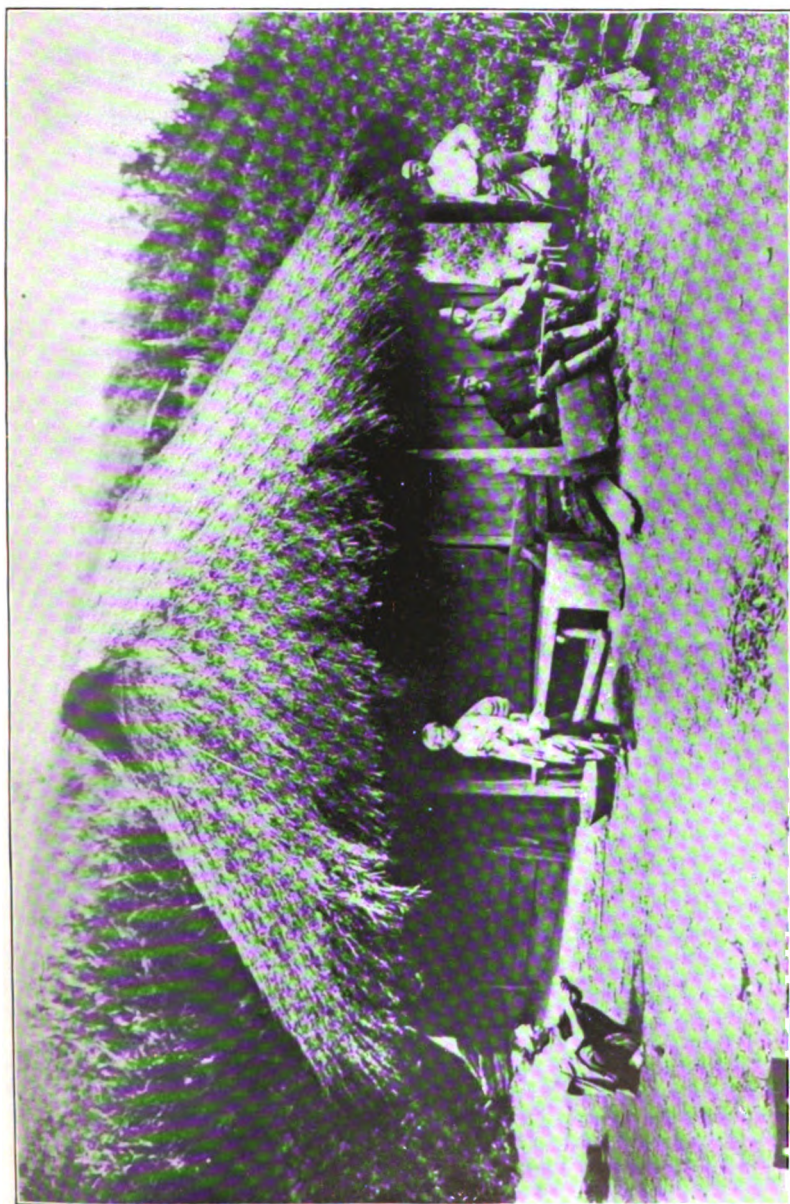
As to the kinds of cases that would do well in the Benguet region, I see no reason to except any. Even tuberculosis, I venture to predict, would do as well as in almost any region I know of, as the air is pure (though at times moist), the temperature very uniform, and the facilities for leading an outdoor life are unexcelled.

In conclusion, I repeat that, although I had heard much of Benguet, I would have not believed that a place so favorable for a health resort existed in this archipelago, had I not visited it myself. I believe that the opening of communication with this region will go far towards solving the problem of the advisability of residence in this country for Americans and Europeans.

I have always believed the Philippines to be as healthful a country as is found in the Tropics. When Benguet is brought within easy reach of Manila, I shall feel as safe in regard to my own health, or that of my family, as I would at home.

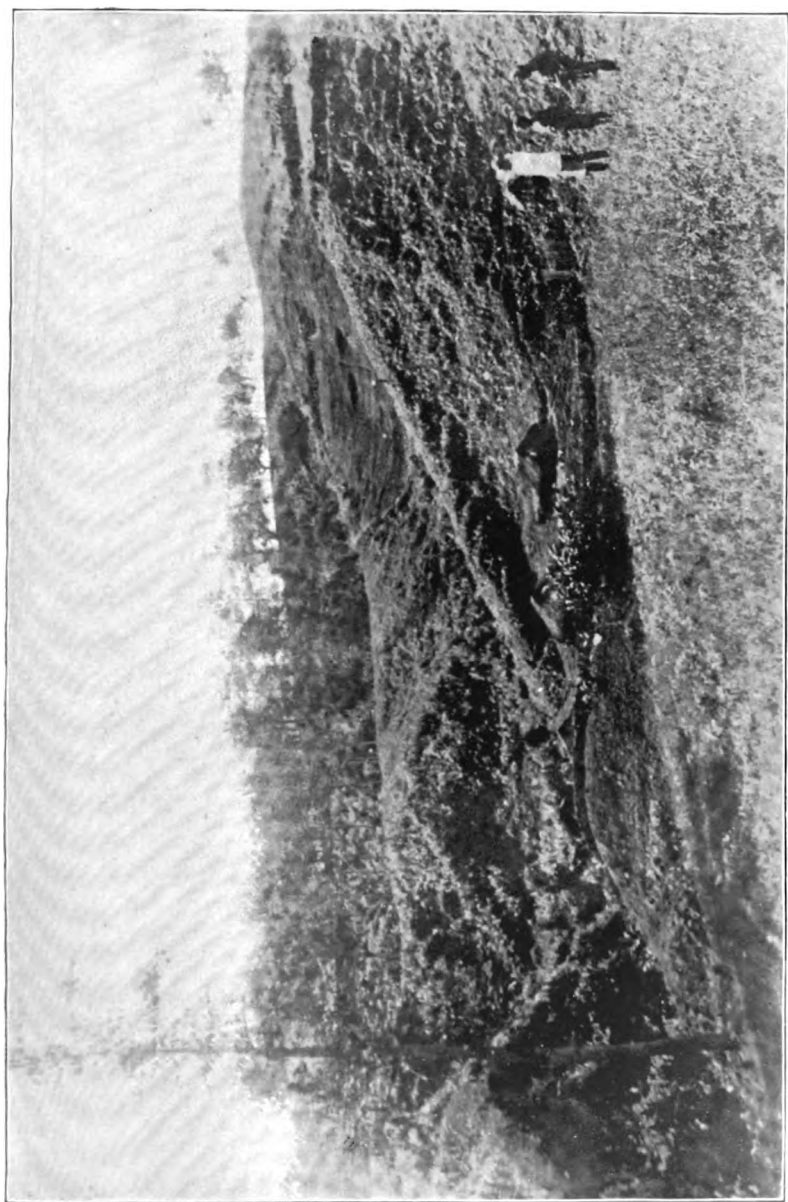
Very respectfully,

FRANK S. BOURNS.



IGORROTE HOUSE OF THE SORT USUALLY CONSTRUCTED. THE BOARDS ARE OF SPLIT PINE AND THE ROOF IS THATCHED WITH GRASS. THERE ARE ONE OR TWO DOORS BUT NO WINDOWS.

(Photograph by Dean C. Worcester.)



VIEW NEAR BAGUIO, BENGUET, SHOWING GENERAL CHARACTER OF COUNTRY.

(Photograph by Otto Scherer.)



IGORROTE WOMAN BAGUIO, BENGUET.
(Photograph by Dean C. Worcester.)

EXHIBIT F.

The Igorrotes of Benguet (North Luzon), by Otto Scheerer.

BAGUIO, BENGUET, June 20, 1900.

THE PRESIDENT AND MEMBERS OF THE
U. S. PHILIPPINE COMMISSION,
Manila.

GENTLEMEN: I have the honor of presenting to you the inclosed paper on "The Igorrotes of Benguet," being "a contribution to the knowledge of the inhabitants of North Luzon, with regard to their civilization," and beg to request that you will be pleased to give it a benevolent reception.

In explanation of this unpretending essay of mine, I would say that it is an expression of my sincere desire to contribute in a modest degree to the vast efforts the Government of the United States is making in order to reestablish order and tranquillity on these islands, and at the same time I wish to be of some utility to this country, which since nineteen years has been my adoptive home.

If, therefore, this paper were to prove successful in both respects it would be all that could wish.

Your most humble and obedient servant,

OTTO SCHEERER.

THE IGORROTES OF BENGUET.

A CONTRIBUTION TO THE KNOWLEDGE OF THE INHABITANTS OF NORTH
LUZON WITH REGARD TO THEIR CIVILIZATION.

I.

That part of the island of Luzon which lies northward of the great central plain of Pangasinan, Nueva Ecija, Pampanga, and Bulacan is of thoroughly mountainous character.

Into the intricate system of its very uncompletely explored topography an approximate insight is gained by looking upon the group of mountain peaks called Caraballo Sur, situated on its southern basis (Nueva Ecija), as upon a central stock from which two important mountain chains fork out, which both run up right to the northern end of the island.

The eastern one of these chains is called "Sierra Madre," and constitutes the east coast (or "Contracosta") of North Luzon, rendering it rugged and inhospitable. The western one, called "Cordillera Central," and further north "Cordillera or Caraballo del Norte," does not so closely approach the corresponding west coast, but keeps at some distance from it, dividing the whole of North Luzon westward of Sierra Madre into three distinct regions or strips of land, all running from south to north.

The easternmost strip, lying between both mountain chains, is the great valley of the Cagayan River with affluents, the best tobacco-growing district of the Philippines, and politically divided into the three provinces of Nueva Vizcaya (Gobierno Politico-Militar) in

the south, *La Isabela* (Gobierno Civil) in the middle, and *Cagayan* (Gobierno Civil) in the north.

The second strip is the Cordillera Central itself, with its northern prolongation, the Cordillera del Norte, a broad stretch of extremely mountainous and very insufficiently surveyed country, the home of a variety of more or less savage tribes, generally comprised under the generic name of "Igorrotes."¹ This region was divided under the Spanish régime into a number of small "distritos," with rather uncertain boundary lines, and more or less dependent upon the adjacent Christian provinces. According to topographical conditions, languages, and advance of civilization of their inhabitants, they varied in size, significance, and political constitution. The most rudimentary manifestation of Spanish sovereignty in those out-of-the-world mountains was a "cuartel" or blockhouse garrisoned by a Spanish lieutenant and a native police force, with orders to hold at bay the head-hunting savages of the surrounding valleys, at whose mercy they very often found themselves. To this order belonged more or less the military stations of Sapao, Kiangnan, Banao, Apayaos, and others. Other districts—the so-called "Comandancias Político-Militares"—were established to attract, with the help of Catholic friars, the heathenish but otherwise harmless, good-natured, and laborious Igorrotes in a gentle way toward civilization (Catholicism). Of this order the most important and advanced are Tiagan, Lepanto, and Benguet. Other districts again, like Bontok, Kaiapa, etc., held the middle between the two classes aforementioned.

The third and westernmost strip of country is that long, narrow bit of coast land left between the Cordillera and the China Sea; it is divided into the provinces of *La Union* (Gobierno Civil) in the south, *Ilocos Sur* (Gobierno Civil) and *Abra* (Gobierno Político-Militar) in the center, and *Ilocos Norte* (Gobierno Civil) in the north.

The inhabitants of North Luzon are, as the rest of the Philippines, a few straggling tribes of the autochthonous "Itas," probably from "itaas," Tagalog for "above" (the mountains), and, in addition, a large number of tribes, including the Igorrotes, which are made up of descendants of Malay immigrants, with more or less admixture of Chinese and Japanese blood. They are partly Catholics, partly non-Christians. The Christians of the west coast are Ilokanos, and speak the language of that name; those of the Cagayan Valley speak mostly Ibanag. The non-Christian inhabitants of the Cordillera are divided, as has been said, into numerous tribes, each possessing its peculiar language and customs.²

II.

From the narrow seaboard plain of the Ilokano rice fields of the provinces Ilocos Sur and La Union on the west coast, the country rises in three distinct stages to the lofty summit of the Cordillera Central.

The first is a low range of bushy hills, running parallel to the seashore and denoting probably a former cliffy coast line; at its back

¹ "Igorrote" = nonchristian native of north Luzon preferring his independent mountain life to Christian civilization; perhaps from "ag-urut," Ilowano for to tear out, to root.

² According to Isabelo de los Reyes, this division of languages has taken place on these very islands, notwithstanding the more or less common origin of the immigrants.



IGORROTE GIRL WITH CARRYING BASKET. THIS CHILD WAS TO BE MARRIED IN A MONTH.
(Photograph by Dean C. Worcester.)



ON THE MARCH IN BENGUET.
(Photograph by Otto Scheerer.)

another level is found, a valley occupied by more rice, sugar, and tobacco fields of the Ilokano population.

The second stage, bordering the aforesaid valley, are foothills and mountains rising quickly to from 4,000 to 6,000 feet, and even more. This is the "hinterland" of the two provinces above mentioned, and it is occupied by the Igorrote districts of Benguet, Amburayan, Lepanto, and Tiagan, all of which have for a long time been under full control and due administration of the former Spanish Government. If they are nevertheless still comparatively behind in civilization it is, apart from their mountainous character, not the fault of the general Spanish policy in regard to the natives, the Government adapting itself, as stated above, intelligently to the special local conditions, adopting such various forms of government as were thought best in keeping with the requirements of the different tribes; nor is it because the Igorrotes of the four districts mentioned presented in their natural qualities any heavy obstacles to their gradual civilization. The fault, in my opinion is, apart from certain well-known debilities of the former administration, that eternal "*conditio sine qua non*" of Spanish civilization—conversion to Catholicism—to which or to whose ministers the Igorrotes strongly objected.

The third of the three stages above mentioned is the range of the Cordillera Central proper. It is separated from the mountains just referred to by two long, deep valleys, which owe their origin to the following circumstances. One of the highest elevations of the Cordillera Central proper is the Monte Data, rising some 8,400 feet above sea level and about two or three days' journey due east of the town of Iagudin in Ilokos Sur. This mountain sends out in a westerly direction a connecting ridge to the mountains of the second stage, constituting thereby a divide of the waters of two important rivers, the Abra and the Agno, which both rise on the M. Data, but which flow, the first northward and the second southward, both bending eventually west and emptying into the China Sea, the first near Vigan, the second near Dagupan. Both valleys belong to the above-mentioned districts of Lepanto and Benguet, respectively, and beyond them to the east, on and behind the crest of the Cordillera Central, there lie territories where civilization has made so far only a sporadic and scant impression on the inhabitants, who, as far as they are head-hunters, constitute a permanent peril to their peaceful western neighbors, into whose towns they are making frequent predatory inroads.

Summing up what I have said in this chapter, we have from west to east:

1. The lowland on and near the coast, populated by the Christian Ilokanos, representing the most advanced state of civilization, equal to that of the southern Tagalog provinces.

2. A very mountainous and rather arid territory, void of extensive plateaus, with a harmless, good-natured Igorrote population; districts of Benguet, Amburayan, Lepanto, and Tiagan.

3. The very little explored mountain fastnesses of the Cordillera Central proper, with a similar but more savage population and with several head-hunting tribes showing traces of cannibalism.

Keeping in view this division it will be understood that, if I now speak more particularly of the Igorrotes of Benguet, my statements naturally apply more or less also to the other districts mentioned under No. 2.

III.

The Igorrotes of Benguet have come to call themselves "Igudut," but the names of the two tongues spoken in this district, which are "Nabaloi" or "Nabiloi" in the southern and central part, and "Kankanai" in the north, might be the truer denomination of the two tribes.

The circumstance that the barrenness of the soil, prevalent in the higher regions of Benguet, obliges the Igorrotes to cultivate the land (rice fields excepted) in a desultory manner, selecting for the cultivation of the sweet potato (camote), their chief food, now here and then there promising patches of land which are abandoned when exhausted after a few years¹, other manuring than by the ashes of the burnt grass and timber not being practiced.

And also this other circumstance, that their chief fountain of wealth are herds of cattle and other animals, which roam freely over the wide extended natural pasture grounds.

Both have naturally led the Igorrotes to live dispersed all over the mountains, be it in real individual isolation or be it in groups numbering from 6 to 20 scattered huts, called "rancherias."

These circumstances founded on natural conditions of life must be well kept in mind, for, if on the one side, it would be cruel to oblige the Igorrotes by rigid laws to live together in towns; on the other hand, this tendency to dispersed living counteracts the action of civilization and good government. It also has been observed that whenever these people experienced some trouble in their habitual life or some vexation in their traditional interests, be it the oppression of their caciques, be it the aggression of robbers, or errors of the government, their unfailing expedient has been to leave the rudimentary towns, to the formation of which a kind government has conciliated them, abandoning their poor huts and fields, and migrating with their families to other higher and lonelier mountains, swelling the hordes of head-hunters, into whose savage life they fall back; thus not only the work of long years of civilizing is undone, but also their would-be civilizers are, strange to say, considerably embarrassed, inasmuch as these, on account of the hardships of life in this elevated region, depend much more upon their pupils than these upon them. I could not characterize this timorousness and passive defense of the Igorrotes better than by stating that I have known several cases in which poor Igorrotes, finding themselves vexed, did not appeal to justice, but "saved" themselves by committing suicide, a fact due, perhaps, to justice not having been always popular, easily attainable, or impartial.

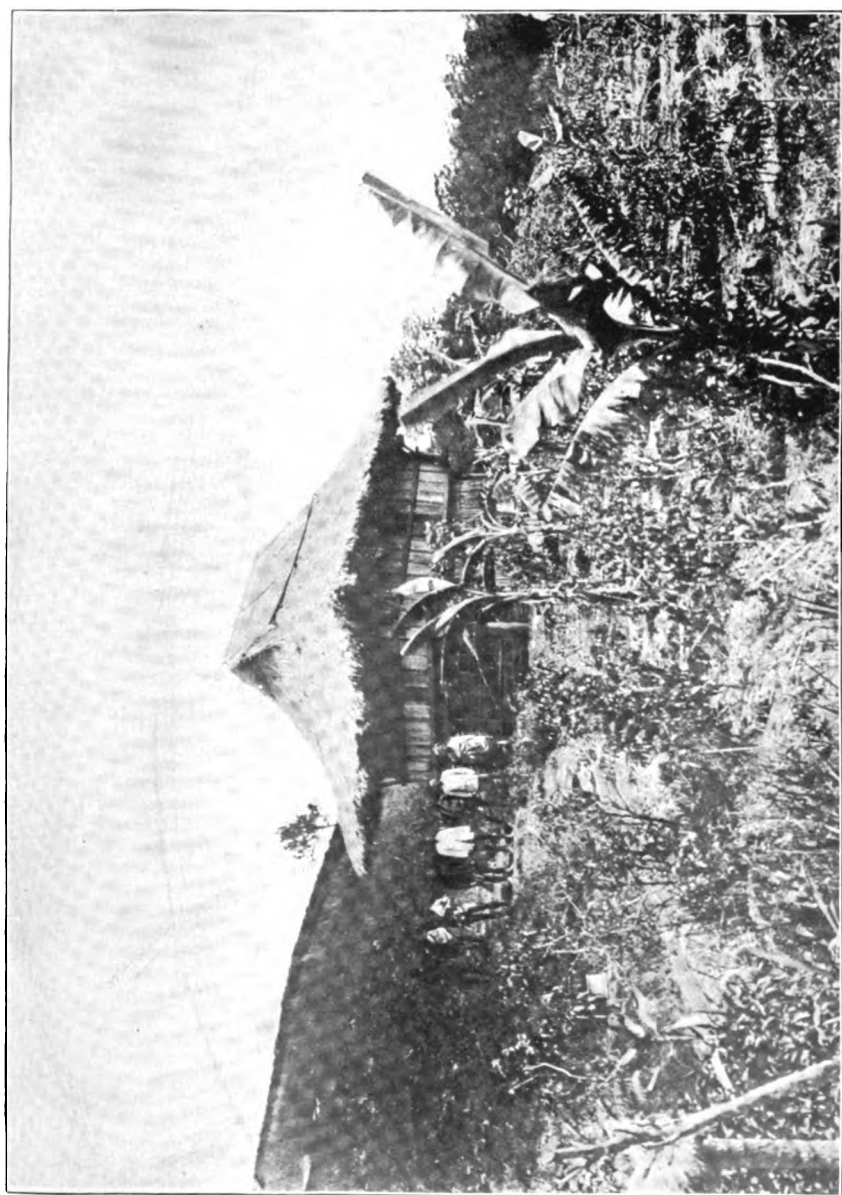
I have shown that the infertility of the soil, coinciding with the indicated timid disposition of Igorrote character, has caused the dispersion of their dwellings.

Another evident consequence of it is the great poverty in which the great majority of the Igorrotes live. This poverty, if numerically expressed, may not be very much greater than that of the poor class of natives in the lowlands; but in a country like this, whose inhabitants are living a frugal life of extremely few necessities, depending mostly on the liberal gifts of an abundant nature, it is not so much the possession of a smaller or greater amount of ready money that constitutes poverty or well-being, but the degree of readiness with

¹ Hence legal titles to real estate unknown amongst Igorrotes.



IGORROTE PACKER, SHOWING METHOD OF CARRYING BURDENS, BAGUIO, BENGUET.
(Photograph by Dean C. Worcester.)



IGORROTE HOUSE OF THE BETTER CLASS; YOUNG COFFEE BUSHES IN FOREGROUND. TAKEN AT BAGUIO, BENGUET.

(Photograph by Dean C. Worcester.)



IGORROTE MEN AT BAGUIO, BENGUET. SHOWS USUAL COSTUME OF MEN WHEN NOT AT WORK.
(Photograph by Dean C. Worcester.)

which nature responds to the demands for food made on her by the native agriculturist or fisherman, his shelter, scant clothes, and few domestic utensils being of very little monetary value. This goes to explain the striking contrast between the neat and cheerful looking poor of the hot lowland and the wretched, miserable looking Igorrote, making his "struggle for life" in the cold, moist climate of the partly arid, partly pine-covered altitudes of Benguet. The poverty of the latter, besides, is added to in a measure by the traditional caciquism exercised over him by the few wealthy families; it must, however, be recognized expressly that the relation between rich and poor Igorrotes is far from being the pitiless and absorbing one existing between similar classes in Europe for instance. The caciquism in Benguet, ugly as are the forms it may present, is at the same time an essentially patriarchic one; the wealthy headman of the clan is looked upon by his poor client as his natural protector in whatever strait he finds himself, and the former is expected and usually ready to help him on, appearing for him before the authorities, arranging his marriage and other family questions, advancing money, sending him portions of meat whenever an ox or pig is killed, and so on.

To the better understanding of the outward circumstances of Igorrote life, the most prominent features of which I have tried to explain above, I must add a description of their inborn or moral qualities.

In the first place, it causes the newcomer in Benguet a very agreeable surprise to find that the lack of outward civilization he notes in comparison with the lowlands is not accompanied by a corresponding deficiency in morals. Just the reverse: the standard of honesty in all dealings of life is undoubtedly a very superior one to that of the lowlands, little flattering as this may be for the influence of civilization. To the observant eye it will furthermore very soon become evident that the traits of character most prevalent among the Igorrotes and which govern all their principal actions in everyday life, are exactly the same as those that are typical of all mountaineers of the whole world—those of the Alps, for instance. We find them outwardly kind and hospitable to the stranger, but inwardly extremely observant and distrustful of his real intentions. If we once gain their confidence they prove good friends. We find them painstaking in constructing artificial terraces for rice planting (the supporting stone wall being sometimes higher than the cultivated patch measures in breadth), in clearing the soil on steep slopes for camote cultivation, in felling and fashioning heavy timber with rude and incomplete implements, or in carrying heavy loads from the plain up to the mountains, 5,000 feet above sea level, they are untiring and uncomplaining; but we also find them exceedingly greedy for, and hard fisted with, the money thus painfully earned, and their integrity is often blinded with an attempt at low cunning.

We must acknowledge that, scanty as their clothes are and freely as they speak among themselves about things relating to sexual relations, they are not disorderly, and their matrimonial life appears to be a quiet and exemplary one. Among the rich we observe a ridiculous pride in their position, and, stingy as they are, they like to boast of their wealth, giving at times festivals that last from two to seven or nine days uninterruptedly, each day a fresh ox, pig, buffalo, or horse being killed and a mild, wholesome, homemade rice wine being abundantly indulged in, yet without fighting or quarreling. In dress and

ornaments they demonstrate a taste that is, in comparison with that of the lowlander, somewhat heavy and somber, but a thoroughly solid and good one. To complete the list of analogies I may add that, like the Tyrolese mountaineers and the Scotch highlanders, the Igorrote men do not like to trammel the action of the knee in mountain climbing, and leave their finely developed lower extremities entirely bare, wearing only a band around the loins and an Ilocano woven cloak wrapping the whole body.

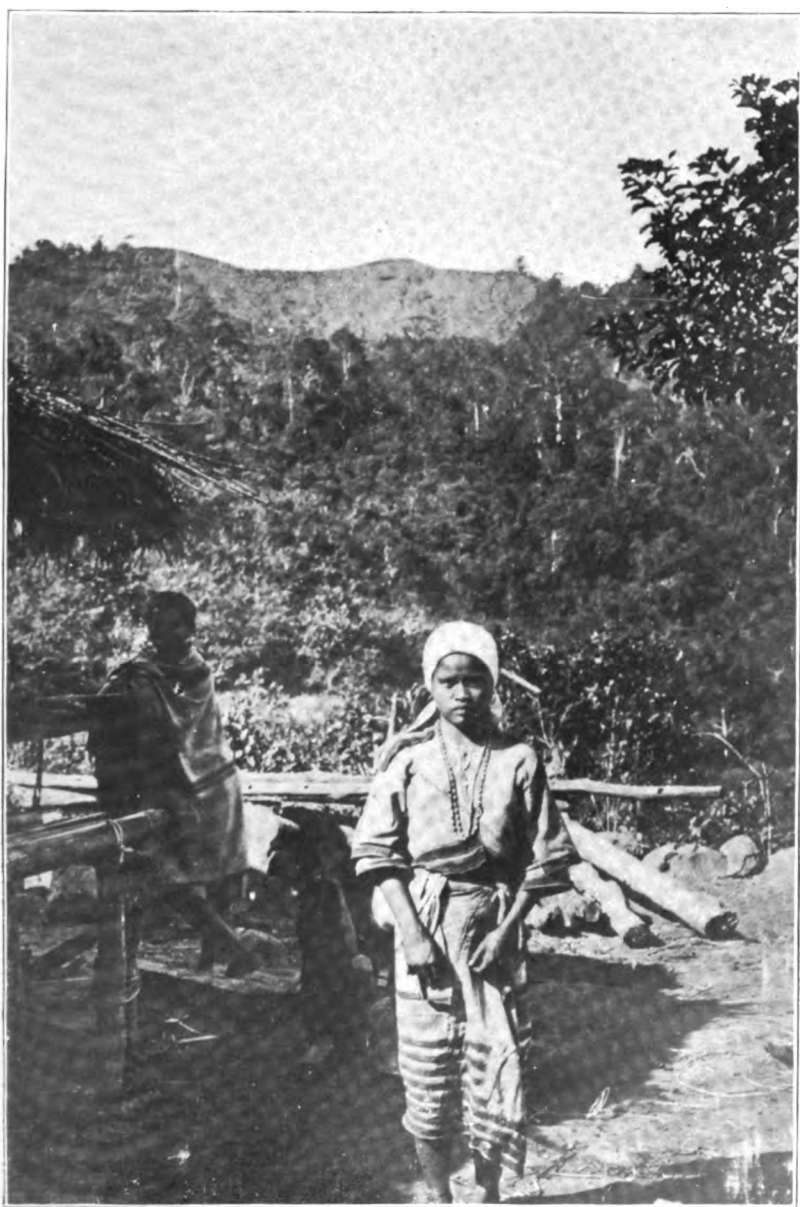
I refrain from a further description of their habits and peculiarities as alien to the purpose of this paper, and conclude my general survey by saying that the Igorrotes are non-Christians, both terms being nearly synonymous, and that, believing in a god of their own called "Kabunian," they have had really very little inducement to become converted, seeing that Christian natives, precisely certain of those settled in Benguet, are just the reverse of superior beings in morals and general conduct of life, whatever the latter's own view of this matter may be. Spanish friars have been at work in the richer towns of Benguet, but apart from converting a few Igorrotes, who, as it usually happens, are precisely the worst specimens of their race, they have rather deterred the Igorrotes from civilization by opening schools, to which the latter are not disinclined, only to children whose parents consented to their becoming "Cristianos," a condition they were unwilling to accept.

It is generally admitted by prominent Filipinos that the intentions of the Government in Madrid, as expressed in the laws introduced in the country, were on the whole just, kind, and fatherly. The wrong was found with the executors of those laws on these islands and with the manner they were applied or not applied, as the case might be, according to the convenience of the all-powerful religious brotherhoods.

If we regard the general plan of Spanish government in a district like Benguet, we can but admit that the idea was certainly a well-intentioned one and to the best of the ability of that old Latin race.

The chief authority was the "comandante político militar," a coveted post, to be filled by a captain of the Spanish army in consideration of more or less real merit. He was responsible for the maintenance of order in his district and for the execution in it of all superior orders. He presided over the election of the native petty governors (*gobernadorcillos*) and other town authorities, issuing orders for the detailed government of the latter. He proposed to the governor-general the persons to be intrusted with firearms. He was chief judge (*juez de primera instancia*) in the district and commander of all armed forces of the same. He was also subdelegate of the administration of public wealth of the adjacent province of La Union, to which he remitted the taxes and other money collected in the district. He was the postmaster, and had several other attributions, which all rendered him a rather incongruous but highly useful compound of gubernatorial and administrative faculties, which, though not frequently put to test, often came in handy in a little growing up-mountain district like Benguet, the progress of which the *comandante* could aid like nobody else if he was the man for it.

The Igorrotes were not subject to the graded income tax known as "cédula personal," but only paid a uniform poll tax called "reconocimiento de vasallaje de infieles" (recognition of vassalage of nonchristians), which from 25 cents Mexican was raised in the last year to 50



IGORROTE GIRL, BENGUET, SHOWING DRESS.
(Photograph by Otto Scheerer.)



IGORROTE WOMAN OF THE POORER CLASS, SHOWING USUAL DRESS.

(Photograph by Otto Scheerer.)



SIDE VALLEY THROUGH WHICH IT IS PROPOSED TO BRING THE RAILWAY TO BAGUIO. IT ENTERS THE MAIN VALLEY OF THE RIVER
BUED AT THE POINT INDICATED BY A CROSS.

(Photograph by Dean C. Worcester.)

cents Mexican per annum. Newly converted Igorrotes (nuevos cristianos) continued to pay this tax for a term of ten years, when they had to take out a "cédula personal." No house tax (contribución urbana) was collected, and as for the tax on commerce and industry, there was next to nothing to impose it on. Above poll tax, an undoubtedly legally limited number of days' work on roads and in other public affairs constituted the only obligations of the Igorrotes. The local government of their town cost them nothing once the "tribunal" or council house was erected, as the posts of authority were honorary ones and the secretary or directorcillo, the schoolmaster, and the police force (cuadrilleros) were supposed to be paid by the central government. The obligation of concurrence to public works (potos, polistas), however, was abused in a scandalous way; the whole substance of an Igorrote's political and social individuality, all his significance in life in the eyes of authority was made up, from youth to old age, by this damnable quality of "polista," and he was continuously exposed at the sound of this word, which has altogether lost its original legal significance, to be torn, night or day, willy or nilly, from his home, wife and family, fields and animals, if needs be by the argument of a whip, saber, or revolver, to do base service, in company with scores of others, in whatever form it suited the convenience of the powerful ones. This curse hangs over him to this day and hour and, once come to the knowledge and right understanding of those in whose hands it lies to remedy it, it will doubtless disappear, in the form described, forever and for all time while the Stars and Stripes wave over these mountains, the right of personal liberty having never been disputed by an American!

The district was divided into 19 townships, the two small villages, with a certain amount of Ilocano settlers, receiving the title of "pueblos," the non-Christian Igorrote towns that of "rancherías," the government and constitution of both classes being exactly the same. The modern Spanish town organization for the Philippines, or "ley municipal," was not introduced in Benguet, and all towns, Christian and heathen alike, govern themselves in the old style under "gobernadorcillos" and "tenientes," assisted by a "directorcillo," or secretary. It was one of the duties of the comandante carefully to watch the permanence of the towns once established, and in view of the well-known tendency of the Igorrotes to take to the mountains (remontarse), such a movement came to be looked upon as an offense or crime. The Madrid Government repeatedly issued strict orders to employ in regard to the non-Christian tribes a policy of suave attraction, and the Igorrotes were allowed to live in the towns, into which they were gradually gathered from the small, primitive rancherías under headmen of their proper race, preserving all of their peculiar habits which were not in open contradiction with a gradual advance in civilization. This gradual advance was an unequal one in the various towns, and it can be said that the "Nabilio" Igorrotes of the south and center are nowadays, what with superior qualifications, and from their proximity to the capital, more advanced than the Kankanar in the north. So, also, it is said, in some towns or rancherías, schools have been established, while the rest remain without such, but even the existence of those schools did not impede that the inhabitants of such towns have remained, like all others, up to this day entirely illiterate and unable to read or write, the essence of their civilization being made up entirely of their own inborn good qualities, and by the outcome of their con-

tinued contest with the rest of the world, which finds in them silent but shrewd observers.

The persons that were most immediately in a position to exercise from their continued presence in the *rancherías* a civilizing influence upon the Igorrotes were the schoolmaster and the *directorcillo* or secretary.

As to the first, I have repeatedly and clearly stated that, in my opinion, schools will only be frequented freely by Igorrotes when conversion to a determinate creed is not made the "*conditio sine qua non*," or even attempted. The adoption of a certain faith, the same as the adoption of a more civilized costume, should be left as a result of education to the spontaneousness of the Igorrotes; to stipulate both as a preliminary condition will only act as a deterrent.

As to the second person, the secretary, he should not be appointed by the provincial governor except after his free election by the Igorrotes of each town. His former direct appointment by the *comandante* ordinarily resulted in certain abuses connected with the character of benefice or prebend which "traditionally" attached to the post of a provincial governor. Besides, and as well with regard to the secretary, generally an Ilokano or Tagalog, as with regard to other combinations, I can not do better than reproduce herein translation, a passage from a work of a former Spanish *comandante* of Benguet (M. Schiednagel, the archipelago of *Lesaspi*), who, in spite of many other errors, is undoubtedly right when he says:

It would also be necessary not to adopt a system of grouping together the domesticated non-Christians with the Christians, because, politically speaking, it is common sense to understand that this would only produce many inconveniences without any positive advantage.

The Igorrote, the Ilongote, the "infidel," of any kind will unhesitatingly bow to Spanish sovereignty and to its representative authority and functionaries of whatever order and category, but he will never, now or in the future, submit to the "indio cristiano" (Christian native of the plains) willingly. And this is not only very natural, but finds its perfect explication be it in regard to them or to any other race in the world.

How could it be conceived that persons of ancient domiciliation and owners of the land, many with large interests, well advanced in the knowledge of general administration, and accustomed to be treated with respect by their own tribesmen in homage to the superior order they believe they belong to, as is common in mankind, should lend or accommodate themselves to the rule of a "*gobernadorcillo indio*," a foreigner in their district most of the time, and to whom they can attribute no more importance than to any other poor of their own race?

In the provinces with the greatest number of "infeles" the number of "indios cristianos" has only happened in and is composed generally of adventurers who have escaped from their own province to enjoy in those new settlements the benefits that might fall to their share, neither do they bring in something nor have they left anything behind. And what is worse, when the benefits established by law for the new creation come to an end, the greater part of them usually return to their former homes.

The organization of the Igorrotes should therefore not be procured by means of "indios" (i. e., Christian natives from other provinces), but they should organize themselves by themselves and by our good example.

Where topographical and other circumstances allow of it, let the *barrios* or *rancherías* of the infeles be grouped together, but one race should never be submitted to the other. Those who, as I, know this intimately can not but foretell disastrous consequences, and I must add that some trials of this system in the country have so far confirmed my opinion.

These considerations, which I could amply illustrate, refer, of course, only to the juxtaposition of the Igorrotes and ordinary, more or less ignorant "Cristianos" from the coast or other provinces, especially if



IGORROTE WOMAN, SHOWING DRESS.

(Photograph by Otto Scheerer.)



IGORROTE HUNTER, WITH RATTAN RAIN COAT, BAGUIO, BENGUET.

(Photograph by Dean C. Worcester.)

vested with a petty authority over the bare-legged mountaineers. If attempted no revolution would ensue—the Igorrotes are wont to bow their heads to whatever order they receive—but a gradual dismemberment or dissolution of the towns would unfailingly be the consequence.

As regards, however, the placing of the whole district under the governorship of an enlightened, kind, and honest Filipino of a high class and of the confidence of the Igorrotes—a measure the probability of which I entirely ignore, treating it here only hypothetically—this would be a different thing, and I may say in this respect that during the war of 1899 I have observed that the unofficial, but nevertheless very effective, humanitarian efforts of an elderly Filipino of the class just alluded to, which had for sole object the maintenance of order, protection of the Igorrotes from abuses of the Filipino soldiery, and avoidance of warlike eventualities on Benguet soil, were responded to by the Igorrotes with the greatest sympathy.

After all the aforesaid, it will be readily understood that whatever good cause the Igorrotes of the district of Benguet had to wish for an abolition of the errors and abuses of the Spanish administration, they were not the people to demand such reforms with arms in hand.

The greatest part if not all the complications of the last years were carried into their district from outside. Against invasion or occupation of their mountains by Filipino soldiery they were mostly protected by their very poverty and scantiness of provisions. Apart from skirmishes with head-hunters, the writer is not cognizant of any bloody encounter or foul deed having occurred in Benguet territory. The only serious event that connected this district so far with the present war was the circumstance that the well-known Filipino Señor P. A. Paterno took refuge in its mountains, although not as a leader of an armed band, but as a fugitive in ill-health, accompanied by his sister and some male and female retainers; he was aided in his refuge by some obedient Igorrotes and captured in May, 1900.

It will also be understood that the disorder of the last years, since the first outbreak of revolution against the Spanish rule, necessarily had to lead and really has led, as regards Benguet, to the consequence so often dwelt upon in the preceding pages, a most deplorable retrocession of the general state of culture of this Igorrote district, as expressed most clearly by the bodily disappearance of two comparatively important towns and a considerable diminution and breaking up of the rest, the inhabitants of which are scattering into lonelier mountains.

The change produced by the temporary Filipino government in the political constitution of the district consisted in the abolition of the military character of its provincial government, for which there existed indeed no serious "*raison d'être*," and in the election of a provincial civil governor and of *presidentes locales* for all the towns in accordance with Aguinaldo's provisional decree of 18th and 20th of June, 1898.

This organization was supplanted in February, 1900, by the introduction into two of the towns of General Otis's General Order 43 (series of 1899), and by the subsequent reduction of all the remaining 17 towns to "*barrios*" of one of the two aforesaid. As regards the former—I mean General Order 43—it was received with satisfaction by the Igorrotes, as it not only proved well in keeping with the rudimentary state of their public life, but also signified for them an important and liberal progress, inasmuch as it extended, like no other

organization, the right of voting to rich and poor alike, a measure well calculated to contribute to the suppression of caciquism. But as respects, on the contrary, the reduction just mentioned, the Igorrotes of the towns concerned hope that it is merely a temporary measure, as civilization has luckily taken already sufficient hold on them to make them proud of the right conceded to them by the former Spanish government to form those towns under "gobernadorcillos" of their own race, to say nothing of other serious considerations that will be easily understood, and that all speak strongly in favor of the rehabilitation of the abolished towns, be it on the old lines or on better ones.

If I may be finally permitted to present in a summary way the deductions logically to be drawn from all my demonstrations on Igorrote life, I would draw up the following:

STATEMENT OF PRINCIPAL NECESSITIES AND ASPIRATIONS OF THE DISTRICT OF BENGUET.

1. Continuation of the work of gradual civilization begun by the Spaniards, avoiding their errors and faults and avoiding also dangerous jumps.
2. Reconstruction of the dispersed towns.
3. Schools in all towns (primary instruction, notions of agriculture, hygiene, and natural sciences).
4. Protection against head-hunters (prudent concessions of arms' licenses).
5. Igorrotes presidents and authorities in all towns, assisted by honest Christian secretaries (elections by rich and poor).
6. Fomentation of agriculture, preservation of woods, replanting pines (first food, money afterwards).
7. Removal of odium attaching to Igorrotes as beasts of burden. (If possible no compulsory carriage or delivery of provisions.)
8. Circulation of small coin.

For an authentication of this list I can only refer to the declarations of the Igorrotes themselves and to the testimony of every honest and well intentioned outsider who has given some attention to the peculiar conditions of this district.

OTTO SCHEERER,

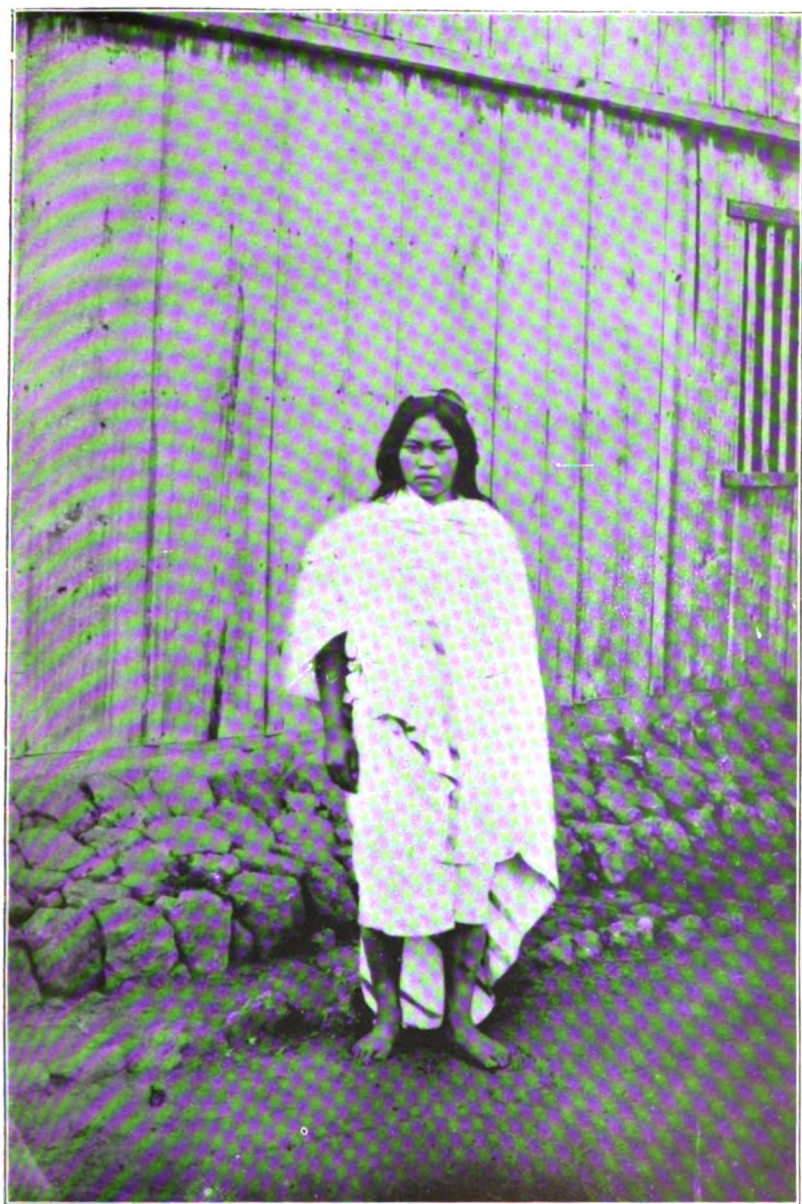
RANCHERIA BAGUIO, BENGUET, *June 20, 1900.*

EXHIBIT G.

Agricultural notes on Benguet, by Otto Scheerer.

The topographical character of Benguet is that of an extremely mountainous territory, presenting no very extensive plateaus, but throughout broken up into a bewildering mass of very high mountains (the highest about 8,200 feet) and minor ridges, which often slope down quite suddenly into deep-cut valleys.

This ruggedness presents a great obstacle to the cultivation of grains on a large scale. Levels, in areas a few miles in circumference, are to be found only in certain high localities (e. g., La Trinidad, Daklan, Laó, Baguio) where more or less circular valleys are furnished, through alluvial action, with a level bottom of fertile and often marshy soil that requires draining. The lower valleys, the most important of which is that of the river Agno, are narrow and have rich soil, the location of which is, however, often far from convenient. They present occasional small firm flats, but suffer much from wash of



IGORROTE WOMAN, SHOWING METHOD OF WEARING COTTON BLANKET.
(Photograph by Otto Scheerer.)



IGORROTE IN RATTAN RAIN COAT.
(Photograph by Dean C. Worcester.

rain water on hillsides. In these valleys the Igorrotes have made, wherever possible, rice fields, by either leveling down or throwing up the soil, and these fields are watered by streams from the hillsides or by the river. Terraces are occasionally seen, the supporting stone walls of which are higher than the plat is broad.

The geognostic features of Benguet may be roughly stated to be an outcropping of hard coral limestone, extending through the center of the district from south to north. At both sides of it trachyte and diorite appear. The uppermost stratum of the latter is mostly clay; red, washed out, and sandy at the surface, and yellow, sticky, and moist deeper down. Its great decomposition produces frequent landslides, particularly during the rainy season. Humus there is little in the higher, grass-grown, pine-covered regions, and the natural causes of this are added to by the recklessness with which the Igorrotes burn over the land to gain fresh pastures.¹ In general, the highland soil of Benguet may be said to be poor.

Climatologic conditions.—These vary considerably, according to elevation. The traveler, descending from the alpine climate of the highlands, may find himself in a few hours in the worst of fever-ridden valleys. The territory here mainly under consideration is the highlands of Benguet, with an elevation of from 4,000 to 5,000 feet (Trinidad, Baguio, etc.). Here the thermometer never rises above 77° F. nor falls below 45°, giving an estimated yearly mean of 62°. The rainy season (southwest monsoon) usually begins a couple of weeks or so earlier than in the plains, say middle of April, and ceases as much earlier, say middle of October, when it usually gives way to the three coldest months, November, December, and January, and to a seldom or never interrupted period of drought (northwest monsoon), until the rains set in again as above stated. During this dry period the vegetation is only refreshed by dews and mists (clouds).

In the southwest monsoon the rains are very heavy and typhoons frequent, both creating great havoc in nature. The water drains off with destructive rapidity down the slopes, the level-bottomed valleys above referred to are often inundated, and creeks and rivers are swollen to a degree to interrupt communication in many places for days and weeks, damaging roads and trails, bridges not existing or being in a shaky condition. The air at this time is as excessively moist as it is dry in winter.

The climate of Benguet is very healthy, the healthiest of all the archipelago. Allowing white people to work all day in the fields, it undoubtedly favors the cultivation of many kinds of northern fruits and vegetables that would not grow elsewhere in these islands. Epizootia (rinderpest) nevertheless exists, and causes great losses. The natives sometimes suffer from an endemic fever, lasting four or five days, or from dysentery, the former arising from exposure to the inclemency of the weather, the latter from unhygienic habits and bad food.

Natural growth.—According to elevation, three different classes of vegetation are observed: (1) Up to about 2,700 feet we find a first zone of "cogon" grass (consequence of "kaingins" of the lowlanders?), which soon gives way—at least in the hills and valleys opening toward the coast and exposed to the full force of the sea breezes—to the mag-

¹ While restricting this the Igorrotes might be furnished seeds of more substantial grass.

nificent splendor of an exuberant tropical vegetation (Sablan). (2) From 2,700 feet upward begins the region of the mists (clouds), which produce a most remarkable change in the aspect of nature, whose chief features thenceforward are extensive, airy pine forests, grassy slopes, fern-grown ravines, and arid hilltops; this second region (the Benguet highland proper) is of poor soil, generally speaking, and the influence of mists on certain cultivated plants must be watched, also noxious insects. (3) On the uninhabited altitudes, from 6,000 to 8,000 feet in height, I have found either bare mountain tops or dense, gloomy forests of moss-covered, orchid-hung oaks, taxus, myrtles, and other alpine flora.

Wild plants worthy of special mention, on account of the inference to be made from their existence, are the heath or whortle berry, strawberry, brambleberry, raspberry, and others. There also occur other kinds of rubus; a wild native species of coffee; representatives of the *Ficus* and *Limus* families, all around or a little higher than Trinidad.

SURVEY OF PLANTS UNDER CULTIVATION OR EXPERIMENTED WITH IN THE HIGHLANDS OF BENGUET.

Sweet potato, or camote.—Kinds most planted, tukian and kulian; more savory than in the plains; grows freely and cultivation can be largely extended; chief food of the Igorrotes, who satisfy their daily needs from the field all the year around.

Rice.—Food of wealthier Igorrotes only; fields not numerous nor extensive; require great outlay in preparing; kinds grown in highlands under irrigation: (a) Without arista—kadiling, gapan, uduisa; (b) with arista—baguan and others; some rice is grown without irrigation in warmer lower places; crop June to August; in some lower valleys, five crops per year (Tublay, Kapangan, etc.). In Spanish times surplus of about one-third or more of whole production exported; nowadays many fields not under cultivation and rice scarce and dear. More ground suitable for rice to be gained by introduction of water-elevating machines (air motors).

Maize (corn).—Not cultivated to any extent in highland under consideration; suitable land limit in extent.

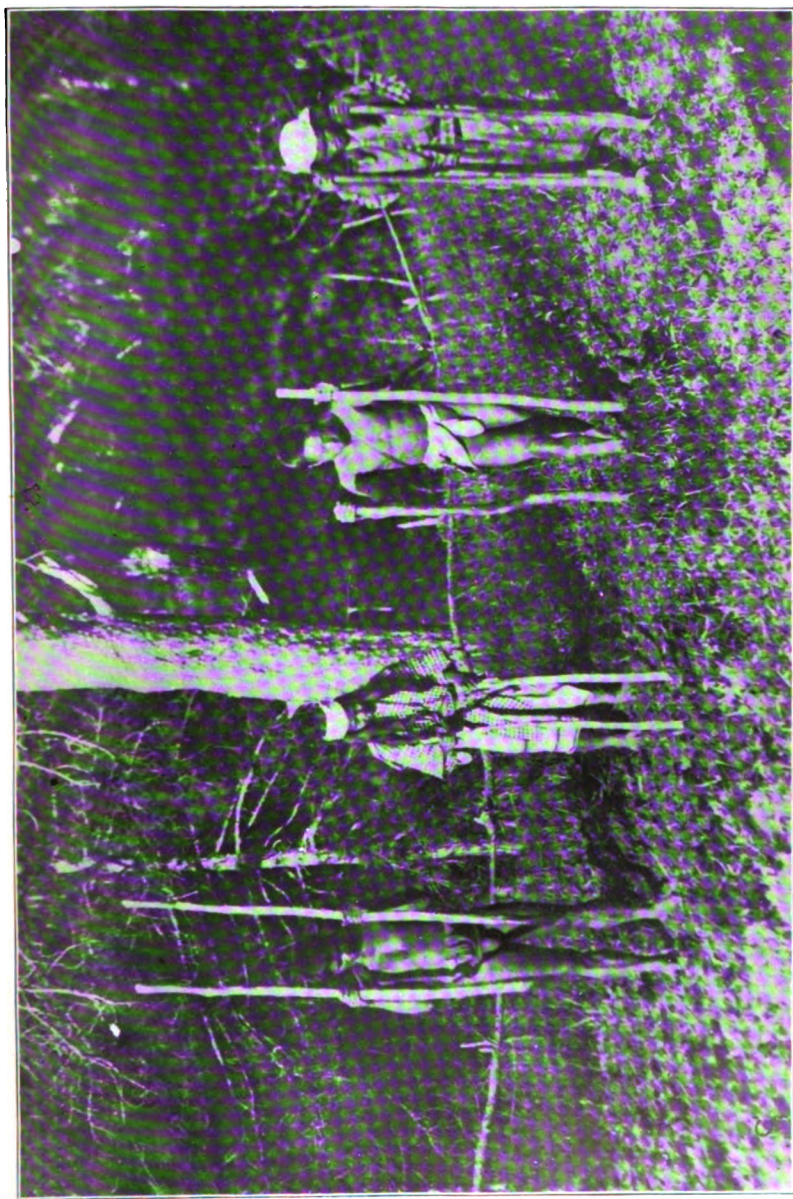
Grains.—Only one attempt, made years ago by Mr. Baltazar, now deceased, of Aringay, to raise “trigo” (wheat) in the valley of Trinidad. It is remembered that it grew up high; not clear why experiment was not continued; some assure that heads turned out rather empty.¹

Irish potato.—Grows well and of large size, if properly cultivated; production can be greatly increased by selecting suitable land. In Spanish times a fair export kept up to Manila; to-day cultivation languishing.

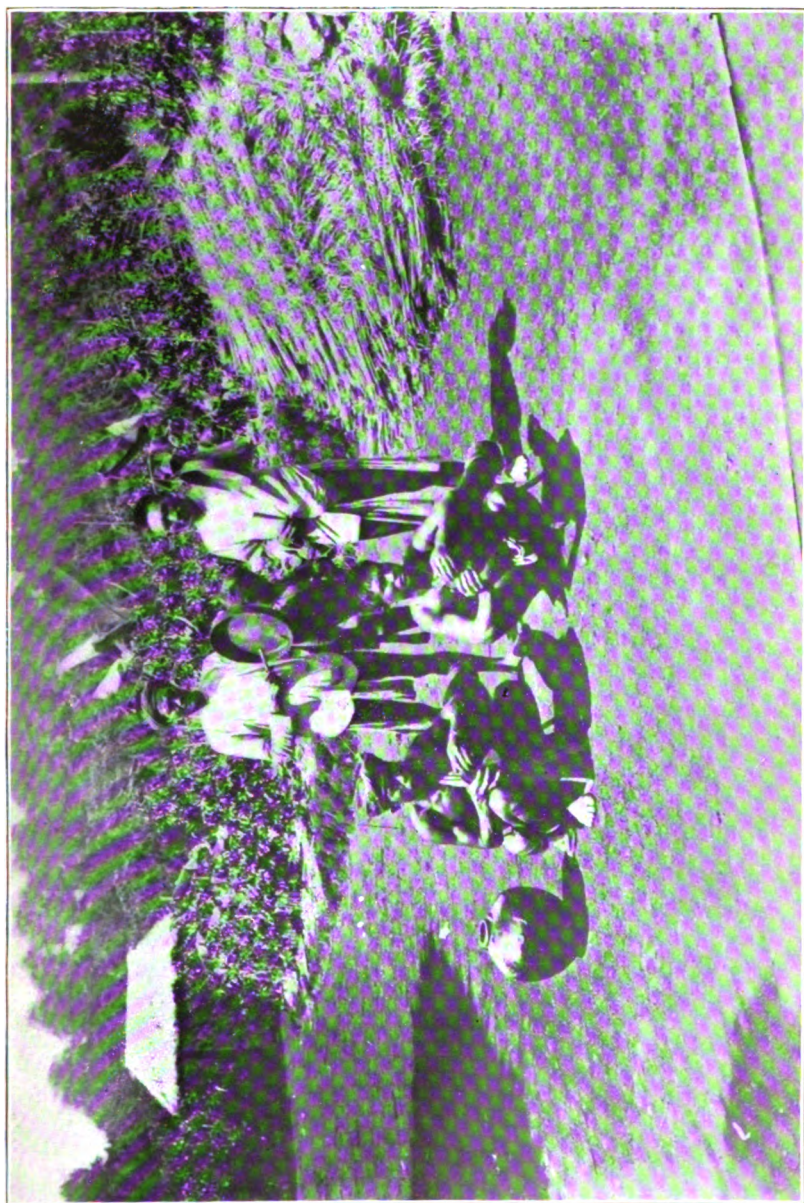
Grass.—Best common fodder for ponies is the “zacate” grass, called here koganagan; ponies also fed with camote, takian, leaves of sugarcane, etc. Recommend experimentation with American “grama” grass and clover.

Coffee (C. arabica).—Does well in small plots around the houses, with shade and manure in abundance. Attempts to cultivate in highlands on larger scales so far unsuccessful; poor soil does not pay; at all events try to locate coffee on soil of above-mentioned lime-rock

¹Newly-built rice fields give a poor first crop and improve later on; repeat experiment; try also on higher, drier land, and especially oats.



IGORROTES BREAKING GROUND PREPARATORY TO PLANTING CAMOTE, BENGUET.
(Photograph by Otto Scheerer.)



IGORROTE MUSICIANS, BAGUIO, BENGUET.
(Photograph by Dean C. Worcester.)

chain and to shade it, also littering the ground. More extensive plantations in lower valleys like Kapangan. *Himalaya vastatrix* exists, but trees survive if fairly well looked after.

Cocoa, bananas, mangoes.—Best in lower valleys; in highlands poor.

Tea.—Attention is especially called to this product; grows well in highlands, but aroma not yet tested; Chinese or Japanese needed to prepare the crop.

Grapes.—Some insufficient attempts made; results not well remembered; best success recorded from Agoo and other coast places, where they did well in the garden of the convento.

Figs.—Small, isolated attempts; so far, young trees have done well and borne fruit.

Lemons.—All kinds grow freely in highlands; oranges want lower valleys.

Mulberry.—Said to grow well in La Trinidad and elsewhere; do not know if attempts have been made with silkworms.

Eucalyptus.—A few trees are growing well in Trinidad and elsewhere; should be planted largely to improve unhealthy, marshy bottoms; infusion of leaves gave good results; sometimes preferred to quinine.

Apples, pears, cherries, peaches, apricots, and all kinds of berries.—Not yet attempted; strongly to be recommended; it might be well to select for beginning rustic kinds that stand hard winds, moisture, and prolonged drought; establish an agricultural station in Benguet and distribute fruit trees and seeds all over the district, to presidents of towns when such are reestablished. Natives have little interest; want control.

Vegetable seeds.—All kinds should be tried. The undersigned and others have raised cabbages (all kinds), tomatoes, gherkins, squashes, beets, pease, beans, turnips, celery, etc. Onions would, so far, not grow from seed; try again. Cabbages and beans raised also by Igorotes on a small scale in normal times.

WHY HAVE THE NATIVES NOT GONE IN MORE FOR PLANTING?

Because it was the tradition in this district that whatever authorities and also private Spanish citizens came up here looked upon the gobernadorcillo or headman of the town as their "ex officio" chief steward, ordering him to provide all possible commodities of life. The headman in his turn sent out the police to scour the country for eatables, which were taken from the Igorotes, who were supposed to have everything, or, if not, to buy them from others. Payment, if it suited the fancy of the Spanish buyer to make any, seldom reached the owner of the articles taken. Another cause is the involuntary servitude to which the Igorotes were largely subjected, the greater part of all contracts between men being here given in the form of orders or of something worse. Vexations were responded to by them with emigration; resistance they never use, much less do they have any political aspirations except the wish to be left in peace. When employed as field laborers, the pay, which was in Spanish times about 10 cents Mexican per day in the south, and 6½ cents per day in the north, should be fixed liberally enough to entice them and to enable them to improve their general standard of life, and yet not so lavishly as to nurture their inclination for gambling.

OTTO SCHERER.

BAGUIO, BENGUET, *September 8, 1900.*

S. Doc. 112—11

EXHIBIT H.—*Report as to the climatological conditions of Baguio (province of Benguet), the establishment of a military sanitarium there, and as to the possibility of building a road furnishing easy communication between the said settlement and the railroad, by Don Enrique Hore, colonel of artillery, Don Rafael de Arilar y Castañeda, Marquis of Villa-Marin, major of engineers, and Don Elias Con y Tres, first surgeon of the military health department.*

THE BENGUET SANITARIUM.

A long-felt want in the Philippines has been the establishment of a sanitarium where the innumerable patients who are compelled to abandon the country in search of the recuperative climate of the Peninsula or of the climates of Japan and the Chinese coast may find relief or a cure for their ailments, and the construction of so useful and indispensable an institution is about to be realized by the government of the Illustrious the Most Excellent Señor Don Ramón Blanco, who has been ruling the destinies of these islands with so much tact.

The idea of the construction of the sanitarium being supported by the Most Excellent Blanco, with all the interest born of the conviction of the innumerable benefits, physical and moral, shown in the saving of the innumerable lives, as well as economical by saving to the State large sums which the existence of the sanitarium would bring about, he has named a commission composed of Don Enrique Hore, colonel of artillery, Don Rafael de Arilar y Castañeda, major of engineers, and Don Elias Con y Tres, first surgeon of the military health department, for the purpose of selecting the most advisable site for its establishment.

So enlightened a commission duly carried out its mission and reported to the most excellent captain-general as to the results of their investigations in a brilliant document, which is, more than this, an extensive and exhaustive monograph worthy of the highest esteem and meriting the most sincere and enthusiastic encomiums.

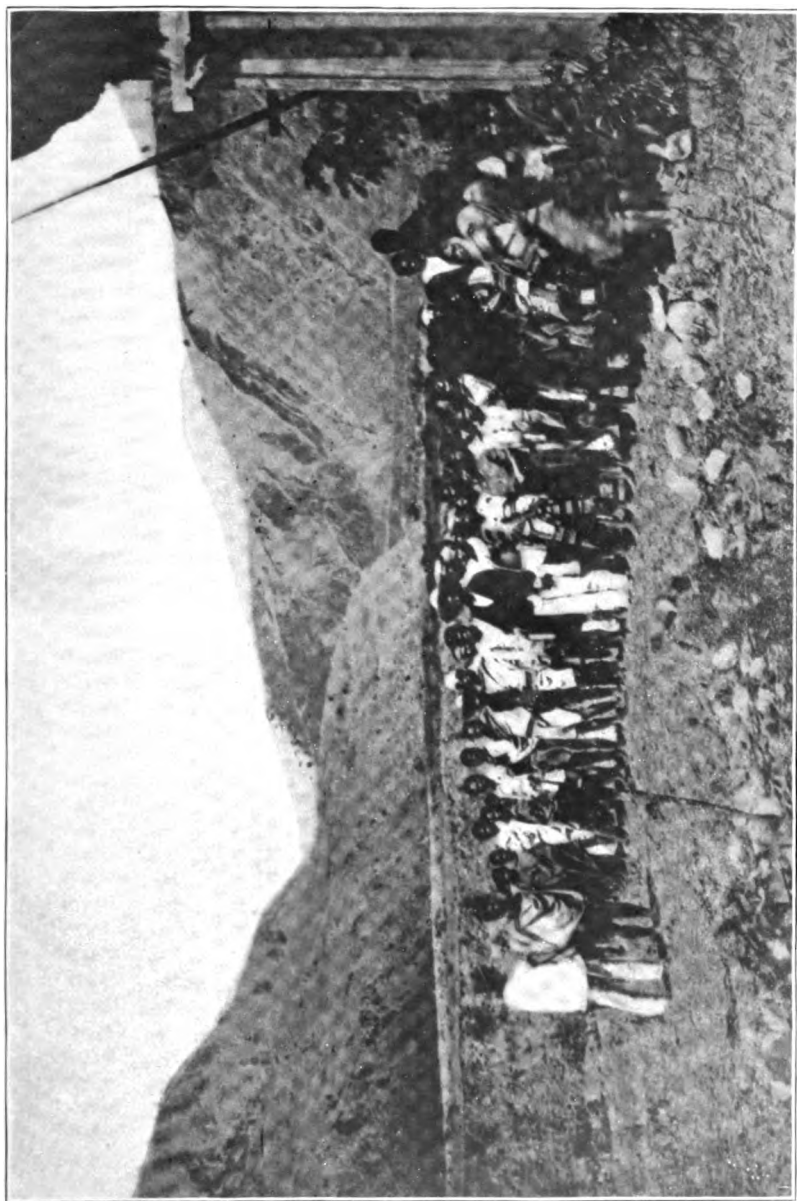
Recognizing the importance and usefulness to the medical geography of the islands of the notable work performed by the said commission, we personally solicited of the Most Excellent General Blanco authority to reproduce so important a document in the columns of our publication, which is the most appropriate for the purpose when we consider the professional character of our periodical, and the authority solicited was kindly granted by our most worthy superior authority.

Deeply grateful for so signal a distinction, we deem it a duty which can not be escaped, while giving public evidence of our gratitude to the Most Excellent General Blanco, to dedicate our humble but enthusiastic congratulations to the purpose he entertains of rapidly carrying into effect the building of the sanitarium, by requesting to that end, before the close of the present year, the necessary funds to begin the work.

The construction of the sanitarium of Benguet under the government of the Most Excellent General Blanco will be another glorious achievement which must be added to the many heretofore attained by so illustrious a ruler.

Here is the work of the commission:

MOST EXCELLENT SIR: It behooves us to enter upon the exposition of our humble work by rendering to Your Excellency the respectful



VIEW IN VALLEY OF THE RIVER AGNO, BENGUET, SHOWING STERILE HILLSIDES.

(Photograph by Otto Scheerer.)

homage of gratitude for the honorable mission you have deigned to confide to us—a mission which we consider the first practical step taken to satisfy a need so deeply felt and so imperatively demanded as is the establishment of a military sanitarium, which, conveniently situated within the limits at our disposal and in a region which, by reason of its climatic conditions, shall resemble those of the Peninsula, shall serve as a complement to the medical hospital service and constitute a proper asylum where diseased soldiers, the nature of whose ailments requires the properties of a bracing climate, may find complete cure, and where those who are convalescent and need a tonic for their organisms, weakened by a long and serious illness, may repair their undermined strength.

We need not dwell upon the great interest the subject involves, nor strain ourselves in the effort to demonstrate that the mountains of Benguet are perhaps the only site in the Philippines where a climatological station may be selected that shall meet the conditions necessary to arrest the enervating influences of a tropical country. The importance and interest of the subject rest on highly beneficent, economic, and social foundations—beneficent, because charity charges that there be done in behalf of the soldier who has lost his health in these latitudes whatever is humanely possible to restore him to health before returning him ill to the fatherland and exposing him in such a condition to the dangers of a long and painful sea trip; economic, because the officers of our army would be saved the large expense incurred in seeking in China, Japan, and other countries the climatic conditions desired for the favorable termination of their ailments, and the State would save the greater part of the amounts it pays out for the passage of the sick men who return to continue their service in the Peninsular army because of the obstinacy of their ailments, and who would find in the sanitarium the desired cure; social, for, the roads which shall put in easy and direct communication the high crests of the foothills of the grand cordillera and the high valleys of the Benguet region with the railroad or the towns along the shore once opened up, there would be an influx, through necessity or for recreation, to the mountainous region of persons belonging to the various social classes, some of whom would engage in its material and intellectual progress, while the remainder would constitute a powerful center of culture, enlightenment, and wealth. The barbarous customs of the savages would disappear before the light radiated by our active progress, the shades of ignorance now enveloping the befogged reign of the Igorrotes would be dissipated, and they would come to learn the immense benefits of science applied to the perfecting and well-being of man.

We can state that no great efforts of imagination are needed to demonstrate the good atmospherico-telluric qualities afforded by the site selected for the location of the sanitarium. They may be deduced from the data recorded in this report, from the value of the observations made, from the investigations of the virtues of the climate, and from the knowledge furnished by the study of the organic conditions of the Igorrotes inhabiting the locality. Impelled by this same thought, a worthy predecessor of your excellency, Lieut. Gen. Don Valeriano Weyler, perhaps influenced by public opinion, but actuated by his own experience, with perfect knowledge of the subject, selected the district of Benguet as the most suitable region in the Philippines for the acclimatization of Europeans, and he established

a military-agricultural colony—an undertaking which, in view of the powerful initiative of His Excellency, was easily realized, and even to this day its beneficial results may be felt.

As complementary to the colony it was thought proper and necessary to install an infirmary. The investigation of the locality for the same was intrusted to a distinguished officer of the artillery corps, Señor Díaz de Rivera, who designated, in a timely report, the capital of the district for the purpose. Perhaps events of greater importance to the interests of the archipelago or the fatherland, which demanded the preferred and just attention of the illustrious general, or perhaps the short time during which he was subsequently invested with the high office of governor-general of these islands, caused a suspension of a plan so laudably and so enthusiastically taken up. Subsequently the military surgeon, Señor de Parades, commissioned to make a climatological investigation of the district, recorded in a well-written report that, although appreciating the good conditions offered by La Trinidad for the location of a sanitarium, he considered even better those presented by the table-lands occupied by the principal part of the settlement of Baguio, distant 6 kilometers from the capital.

To confirm or not the excellent climatological conditions and the suitable health conditions said to be possessed by this territory where the settlement of Baguio is located for the establishment of a military sanitarium; to select the proper point for the erection of the building, and to study the several roads and learn the different orographic basins by which easy communication could be established between the said settlement and the towns on the plain in the provinces of Pangasinan or La Union—these are the subjects which Your Excellency intrusted to us and which are covered by this report. Their treatment undoubtedly presents numerous deficiencies, some originating in the lack of means for making full and accurate observations and others having for their cause purely subjective circumstances which arise from little aptitude for the observation of climatological phenomena.

Admitting the gratuitous supposition of having been initiated into the mysteries of adorning the periods and the clauses of this writing with the wealth of terms and the fluidity of harmonious words which so exuberantly exist in our language, we would flee from it, for to our mind a conception of the subject can best be conveyed by the clearness in language and the methodical order with which the subject should be treated rather than by the polished style and selected phrases in which it might be set forth.

Not departing from simplicity in language, having a care as far as possible to the accuracy of observations, and giving preference to the certainty of the facts we note down, we will proceed to divide the report under heads, the better to express it. The first point which was the subject of investigation had reference to the health conditions of Baguio, and must necessarily embrace the study of those elements (air, water, and site) which, from the beginning of medical science, have had recognized importance in the determination of climates. Therefore we will record the nature of the ground, the hygienic qualities of the soil, the meteorological phenomena observed, the quality of the water, the number of springs and streams, and as essential and complementary matters everything touching on the organic, social, and pathological conditions of the population, and to the establishing the characteristics of the climate, deducing its physi-



GROUP OF IGORROTES, THE HEADMEN IN EUROPEAN DRESS; TYPICAL BARREN HILLSIDES IN BACKGROUND.

(Photograph by Otto Scheerer.)

ological effects and its therapeutic properties. Under the second point, which relates to the location of the building, the site and boundaries of the same must be set forth, with a description of the materials available in the neighboring regions for its construction, with the addition of a preliminary plan of "nosocomio," which in our humble judgment meets the desired requirements. Under the third and last point are to be found comparisons of the several basins through which the road can be constructed, selecting that which shall vouchsafe for future means of communication the greatest assurance of durability and the least cost; guaranties which we shall appreciate by the ease of its grade, the least number of canyons to be crossed, and in general by the least inequalities of the ground. Having made the foregoing preliminary statements, we divide the report into the following:

- I.—The ground.
- II.—Climatological observations.
- III.—Hydrological investigations.
- IV.—Demographic data.
- V.—*Climatoterapia*.
- VI.—The sanitarium.
- VII.—Preliminary plan of the building.
- VIII.—Communication between Baguio and the plain.

I.

In this section appear in groups all the data concerning the geographical situation, the topography, the present means of communication, and the composition of the soil; also, in so far as the knowledge is of interest, the orography of the territory where the projected sanitarium is to be installed. To these facts we add observations regarding the seismic phenomena, the productions of the soil, and the fauna.

A.—GEOGRAPHICAL SITUATION.

The settlement of Baguio is situated at 16° 32' north latitude and between the 126th and 127th degrees longitude east of the meridian of San Fernando. It is comprised within the political military command of Benguet and is situated at the south of the district, on the western slope of the great central mountain range Caraballo. It is bounded on the north by the pueblo of La Trinidad, on the east by the settlement of Itogon, on the south by the same settlement and the territory of the pueblo of Galiano, and on the west by Galiano and La Trinidad.

Igorrote huts constitute the settlement. They are constructed in groups, some distance apart, forming independent precincts; of these the principal are Baguio, which gives the name to the settlement, located on a plateau situated 6 kilometers in a southerly direction from the pueblo of Trinidad, capital of the district; Lucban, situated on the slope of a mountain between La Trinidad and Baguio, to the northeast of the latter, and Loacan, 6 kilometers in a southerly direction from the principal precinct of the settlement.

Of the localities enumerated and the above-mentioned precincts, we are only concerned with the exact knowledge of the ground of the settlement, or, in other words, of the place occupied by the group of dwellings called Baguio. It is completely impossible to fix the real limits of this precinct with reference to the others, because they are

not surveyed; therefore we will describe the topographical limits, which are perfectly clear on the visible horizon. The north and south part of Baguio are bounded by hills of the same plateau, there being behind them to the south the summit of Mount Tudin; and the east and west by large mountains separated from the plateau by deep canyons. To the southwest can be discerned the summit of Mount Alagut, 2,015 meters high, and covered with a dense forest of pines, and near it the almost inaccessible Mount Tonglon, with 2,261 meters of elevation above sea level.

The plateau of Baguio, whose altitude is 1,425 meters above sea level, occupies an approximate area of 150 hectares, with a circumference of 5 kilometers and a diameter of $1\frac{1}{4}$ kilometers.

B.—TOPOGRAPHY AND MEANS OF COMMUNICATION.

Although, properly speaking, it is a valley on the summit of a large mountain, surrounded by deep canyons, we consider the ground where Baguio is situated a plateau, on account of this valley's being formed by slight undulations caused by moderately sloping hills which almost surround it, and on account of its presenting all the characteristics assigned in climatology to elevated plateaus. The hills are eight in number and are joined together, forming a chain, except on the north-eastern side, where there is a canyon or ravine which drains the plateau. Those situated on the north and east have an elevation of 40 meters above the level of the valley. Two situated on the southeast present the same altitude. Of the three which are on the south, one is 50 meters, another 30, and the lowest 20. The last of the eight hills, situated on the west, and on whose summit is constructed the "tribunal" of the settlement, attains a height of 33 meters above the lowest point of the valley.

Springs appear in the depressions of the ground where the hills join one another and, coming together, form the Minac Creek, of which we will treat in the corresponding section. We have already said that the horizon was limited—on the eastern side by high mountains, formed one after another in the form of an amphitheater and covered with pines, making a beautiful panorama; and on the west there is another mountain, which, if we are not mistaken, was named years ago by a political military commander "Mirador," on account of being able to see from its highest point the imposing and grand canyon formed in one of its sides by the northern slope of the majestic Mount Alagut, at the end of which is the pueblo of Aringay and the outlet of the river of the same name into the sea. It is also possible to see almost the entire gulf of Lingayen and the cape of Bolinao.

The plateau is crossed from the northwest to the southeast by the road which proceeds from the Pueblo of La Trinidad to the settlement of Itogon, which road crosses the Minac Creek by means of a covered bridge made of boards, well and recently constructed. This is the road which places Baguio in communication with the capital, and it is in a comparatively good state of preservation; in its first third it crosses the valley of La Trinidad in a straight line, the direction being constantly south, and penetrates into a pass in the mountains skirting the left margin of the Mapili or Balili River; in its second third the soil is composed of limestone, conglomerates, sand, and clay; in the last third it ascends by moderate windings and by not very steep grades

through a beautiful forest of pines covering the northern slope of the large mountain on whose summit is situated Baguio. The inspector general of mines of the archipelago, Sr. Abella, states that on this road are found modern volcanic rocks, that the limestone is compact, crystalline, and gray, mixed with a gray sand, that the conglomerates are of sand and clay, that blackish clay is found, and andesite mixed with augite with amphibol.

In addition to this road, there are: a path between this settlement and the precinct of Lucban; another which extends to the east to the gold mines of Antamoc; and another road, the construction of which was begun, extending in a westerly direction to go down to the plain following the valley of the river Aringay.

C.—COMPOSITION OF THE SOIL AND SEISMIC PHENOMENA.

In the composition of the soil, the combination of mineral and organic substances, the vegetable predominating in the latter and containing in their interstices air and water, we must consider the primary elements, the area of the region, and the seismic phenomena—that is to say, what could be deemed the organization, vitality, and disturbances of the soil. A knowledge of the soil is of the greatest importance in order to appreciate the health conditions of a region, for it is now admitted that the soil is one of the most important factors in the propagation of infectious diseases, as is deduced from the investigations of Pettinkofer and others, with respect to the influence the soil and its humidity exercise over the inception and development of some pathological conditions.

The component parts of the soil vary according to the different localities of the settlement which are examined. The soil of the plateau is composed of red, clayey earth mixed with some limestone. In some places the sedimentary formations are composed of sandy deposits, limestone quartz, silica, and red clay. The quartz-bearing regions of Pamutcutan and Antamoc carry native gold; limestone abounds in the mountains in the vicinity of Baguio. The worthy opinion of Señor Abella, already cited, confirms this composition of the soil, asserting that there are outcroppings of recent eruptive rocks and that the strata of limestone which are found west of Baguio rest on a foundation of conglomerates, sand, and clay. Señor Abella states that near Baguio a dioritic formation reveals itself, the oldest in this part of Luzon, and that to the west and south there rest on the diorites a series of sedimentary strata of recent formation composed of conglomerates, at times of large size, in the middle section, and of clay in the upper; the limestone is compact, crystalline, reddish, and gray; the diorites are quartzose and porphyritic; the sands contain fragments of amphibol and plagioclase crystals.

The nature of the land is not such as would have been desired for the object sought; clayey soils are not reputed to combine the best health conditions, as they absorb but little rain water and retain the little water they absorb, evaporation being slight. Therefore a clayey soil has the detriment of being moist and the bad quality of not being permeable, preventing the water from passing, as through a filter, to drain and aerate the lower strata, for such are the beneficial effects afforded by rain water filtering through soil, as they carry in solution great quantities of oxygen. Prof. James Eliot, who has devoted him

self to this class of observations, asserts that, conditions being equal, clayey soil delays longer in drying than vegetable soil and much longer than sand. The experiments of Schubler with a hundred parts of different kinds of soil are well known. He deduced that pure clay contains 70 per cent of water and clayey soil 60 per cent, while siliceous sand contains 25 per cent and limestone 21 per cent. The difficulty sandy deposits have in holding water and the ease with which they allow its passage, as shown in the foregoing observations, causes them to be placed in hygiene at the head of permeable soils.

Fortunately the disadvantageous hygienic conditions presented by the nature of the soil of Baguio are neutralized by the favorable declination from south to north which the plateau presents and the converging of the easy slopes of the hills at the points crossed by the Minac Brook, which collects the rain water, which easily slides over the surface of the ground without forming pools or lakes other than the small puddles caused by the overflow of the said brook because of the insufficiency of its bed. The small number of these puddles and the facility with which they flow into the brook when the rains have ceased prevents them from having any injurious effect upon the health of the region, and this slope of the land is not the only advantageous circumstance which prevents the clayey soil from absorbing the water and retaining it, thus converting it into a moist and consequently unhealthy region, for there are other circumstances which lend themselves to the same end, which are: Rapidity of evaporation due to the winds which blow almost constantly, the uniformity of the temperature, and even the great precipitation with which the rain spreads over the ground. We admit, therefore, that the soil has the condition of being dry during the period of the northeast monsoon, and relatively dry during the months when the southwest monsoon blows. Such is the first condition found in the study of the area of the soil of Baguio.

The temperature, or rather the greater or less capacity which said soil has for retaining heat, is an easy matter to arrive at, considering the slight humidity thereof and the uniformity, as we shall soon see, observable in the atmospheric temperature. Both temperatures should coincide, and such was the result, with almost imperceptible differences, of several observations made by us 1 meter below the surface immediately after a rainfall, some days after a drought, and at different hours of the day and night. The coincidence is natural, since the effects of the daily changes of temperature are noticeable in the soil to a depth of a little more than a meter. Perhaps at a different time of the year, when the rainy season reaches its most frigid stage or the dry season is at its height, the temperature of the earth may be a little higher or lower than that of the air.

Finally, these statements relating to the humidity and to the temperature of the ground refer only to the greater part of the soil of the plateau denuded of forest growth, for where this is to be found we must logically admit that the temperature is lower and the soil somewhat less dry. And here we enter upon the study of a third point respecting the surface of the ground, which is invested with as great importance as the humidity, and, hygienically considered, is much more important than heat. We refer to the vegetable covering of the ground. Not only do the forests retain the humidity more and all plants contribute to a greater amount of dew, but they also determine the salutary result of the nonexistence in forests of extreme tempera-

tures, preserving the ground from the solar influence or preventing terrestrial radiation. Thus the plateau, being divested of vegetation, save where the ground is cultivated, its soil is warmer than the surrounding hills, for it takes advantage of all the heat received, while where trees are abundant these latter need it for their existence and development.

The ground of the principal precinct of the settlement of Baguio is covered to a great extent with grass rather than with herbage, some few copses, cultivated lands, small reed marshes, and pine forests covering the surrounding hills. The table-land may therefore be considered for climatic purposes as a meadow influenced by near-by forests; the cultivated ground is only under potatoes, sweet potatoes, corn, coffee trees, gabe (a tubercle), and cabbages. We have proof of the small quantity of water retained by the land in the fact that rice is not cultivated; the reed patches are to be found on the banks of the brook and at the source of the springs; the few copses are situated on the lowest part where the sides of the hills meet, and the latter are almost entirely covered by beautiful pines.

The constituent elements of the grounds being known and the surface of the soil described, all that remains is for us to say two words regarding the disturbances of the earth's crust known by the name of earthquakes. The months of our stay at Baguio were not marked either by the number or intensity of the seismic phenomena, although we were assured that on the ground covered by the neighboring settlement of Itogon the movements of the earth's crust are very frequent. The following earthquakes are the only ones noted among our observations: One, experienced on June 4, at five minutes to 4 p. m., lasted from ten to fifteen seconds at most, and the oscillation was from east to west; another, on the 8th of the same month, at 4 p. m., was coincident with a distant atmospheric storm; it was a trembling motion and of very brief duration, similar to another shaking which we felt a few minutes later.

Be the cause of these disturbances great subterranean displacements, or be they judged the result of a sudden retrocession of a great underground current of water, or be they attributed to other causes, certain it is that their frequency in a certain region is in proportion to the number of volcanic vents there existent. The seismic disturbance experienced in Luzon during the months of March and April, 1892, had its center in the Bued defile of Mount Ponglon. This mountain and the one nearest to the Baguio plateau, Alagut, seemingly constitute a volcanic vent, and nevertheless the Baguio witnesses of those intense earthquakes state that no fissures were opened in the ground around the settlement, nor on the sides of the neighboring canyons were there any loosening, nor were any houses razed; fissures and loosening of the ground could be examined to the southwest of Baguio, but at a considerable distance.

D.—PRODUCTIONS OF THE GROUND AND FAUNA.

In treating of the cultivated land, speaking of the vegetable growth, we will enumerate the principal products obtained. The statement is obvious that much greater development would be attained in agriculture if the Igorrotes possessed any civilization and had acquired the necessities engendered by civilizing influence and connected with a progressive condition of affairs. With little intelligence and still less

natural activity for all kinds of work, they only raise on their farms those species which their ancestors cultivated and in the quantity which they deem sufficient for their subsistence, ignoring or appearing to ignore beyond redemption matters which are told them regarding widening the sphere by regular cultivation, and not appreciating the benefits that would result from the sale of the products. The principal article cultivated, on account of constituting the basis of the vegetable nourishment which they use, is the "camote," the tubercle of which attains a large size, is of a sweet taste and pleasant to the palate; there being also cultivated coffee trees, thanks to wise governmental action; the potato, which although scarce, they export; corn, "gabe," sufficient for their consumption, and for a short time they have had beans, onions, and some cabbages.

Among the plants which do not need cultivation for developing them and which grow in the settlement we must mention first the pine, which covers five of the eight hills which we have said form part of the plateau, and also covers the mountains surrounding it, the larger number of the trees being of the species called Austral, and the rest being pines which produce considerable resin. On many occasions we had opportunities to admire magnificent specimens of them, perfectly straight and more than 50 meters in height. Ferns abound. They are generally small, as in the temperate zones, but in the canyons, where the springs are found and which are better sheltered from the winds, grow beautiful specimens of tree ferns. Oak grows on Mount Alagut, and it is not difficult, even nearer the plateau of Baguio, to find some evergreens or small live oaks. There is considerable "bejuco" (rattan), the exportation of which to the plain constitutes the wealth of the settlement; also blackberry bushes, strawberry plants, ginger, sarsaparilla, sage, malva, and camomile. Bamboo, "junco" (kind of straw), "grama," and "cesped" (kinds of grasses) complete the enumeration of the principal wild vegetable products of the settlement of Baguio.

The fauna is limited, the number of species and varieties being small. There is a large number, in proportion to the necessities of the population, of cattle, water buffaloes, and hogs, and following these in importance, chickens, horses, and goats. The dog and the domestic cat deserve mention through the circumstance of being used as food by the Igorrotes. It appears that in the vicinity dwell the wild boar and the deer; some otter and wild-cats are likewise hunted; the other animals, we repeat, which, though scarce in number, are those peculiar to the latitude, consist of birds in considerable abundance, "mayas" (weaver finches) of various sizes and beautiful colors; crows, the starling, and other species of birds similar to thrushes; and there are also among the insects, flies and spiders, the latter not poisonous. As a matter of information we confirm the fact stated in the report prepared by the military surgeon, Señor Paredes, that the altitudes of the district of Benguet are free from the pests of the pueblos on the plains, such as cockroaches, ants, and mosquitoes.

The mineral productions are confined to gold, which is extracted from the parts of the settlement above mentioned, the product being small on account, perhaps, of using primitive and crude methods of exploitation. It is to be regretted that intelligence and brains are not used in investigating for the purpose of exploiting veins of such richness in order to secure more positive and beneficial results.

II.

CLIMATIC OBSERVATIONS.

The most essential part of climatology is the statistical report of the phenomena observed in the atmosphere; this is the part to which we devote our efforts in the present section. In order that the statistical figures should exactly state the atmospheric conditions of Benguet, it was necessary that the observations should embrace the period of one year at least, the only method of obtaining average figures of any importance regarding the temperature of the atmosphere, the atmospheric humidity, the barometric pressure, the movements of the clouds and the rainfall; and the directions and force of the winds prevailing there. Besides, the unequal distribution of pressure, the different quantity of vapor condensed, the strength which the winds possess, the grade of heat, and the electric condition of the air—in a word, all the meteorological phenomena—undergo change and greatly vary, although in some of them the difference is relatively small, in the two great annual seasons which characterize the climate in general of the Philippine archipelago.

To be truthful, we must confess that the influence of the monsoons on the climatic conditions of Baguio is not as great as was expected by us when the altitude and topography of the ground was given to us, in spite of the elevated plateau and the slight depth of the valley in which it is situated. Perhaps it is anticipating, but we will affirm that the factor which is perhaps the most important of climates—the temperature—does not undergo extreme variations, due undoubtedly to the fact that in neither of the two seasons is the air heated rapidly or cooled suddenly; or, in other words, that neither the absorption by the earth of the solar rays nor the nocturnal radiation of the same takes place suddenly. The changes undergone by the atmosphere of Baguio in these two seasons should inaugurate the present section of the report. We will set forth the climatic observations prepared by ourselves in the following order: (a) Seasons; (b) purity of the air; (c) atmospheric pressure; (d) temperature; (e) prevailing winds; (f) humidity of the atmosphere and rainfall; (g) nebulous conditions; (h) electricity.

A.—SEASONS.

There is no necessity of devoting much attention to the application to the local climate of Baguio of those conditions which characterize the principal seasons of the archipelago. The climatic changes following each one of these seasons are the same, more or less intense, which are peculiar to the western zone of the island of Luzon. In the humid or rainy season, in which the sun attains its greatest height and in which the prevailing direction of the winds, called from their duration monsoons, is from the southwest, the degree of heat increases, the atmospheric pressure diminishes, and there exists a greater quantity of watery vapor. There is therefore a more cloudy condition and the rainfall is more frequent. To a large extent the observations made by us refer to this season. We must suppose, and to a certain point the supposition is corroborated by the observations made by us, that in the dry season, when the sun is at a less height and the prevailing direction of the winds is from the northeast, the degree of heat is less,

the barometric pressure increases, there is a less amount of watery vapor, the air is clearer, the precipitation much less frequent, and the amount of rain small.

The change from one season to another is characterized by a period of more or less duration, in which there usually occur climatological manifestations corresponding to or presenting features of both seasons, as these do not appear with the regularity assigned to them by some persons, nor do they exhibit from the very first moments all the atmospheric phenomena which distinguish them. As a good example of this, we noted during our stay in Baguio that the change from the northeast to the southwest monsoon was made imperceptibly, little by little, without great disturbances, and as if the atmosphere were undergoing a slight evolution. This may have occurred as an exception in this year, but it is a certain fact that the first change in the year of the monsoons is not accompanied by the disturbances usually occasioned by the change from the southwest to the northeast monsoon.

The winds increased somewhat, but without their force, intensity, or duration being as great as or even approximating that of the hurricanes which occur there from the middle of September to the middle of October, according to persons familiar with the locality. It would have surprised us very little that there should prevail strong winds during June, as the constancy of such winds in tropical countries and the fact that they reach their height in those months in which the temperature is somewhat high and the atmosphere contains more vapor are very well known.

We have, then, the southwest monsoon, which corresponds to the summer season of temperate zones, and which is the cause of the low barometric pressure observed in the interior of the continent of Asia; the northeast monsoon, which in its turn corresponds to the winter season in the same temperate zones, and which goes from the low barometric pressure of Asia to seek the equatorial calms in the Indian Ocean; and we have two intermediate seasons, the first of which is more clearly defined, and is characterized by the phenomena of both the others. As the altitude, the topography, and the local condition affect the determination of the seasons with more or less force according to the latitude, although this influence is not very great in the Philippines, still, from observations made at different seasons and from facts gathered from intelligent persons, it can be stated regarding the climate of Baguio that there are three perfectly defined seasons—one, cool and dry, embracing the months of November, December, January, and February; another, temperate and dry, embracing the months of March, April, and May, and the last, temperate and rainy, including the months of June, July, August, September, and October.

B.—PURITY OF THE AIR.

We do not know any atmospheric phenomenon which more directly affects the local conditions than the purity of the air; in climatic investigation it is absolutely essential to ascertain the quality of the air as regards purity; its elevation above the level of the sea, as the air becomes purer as the elevation increases; its distance from thickly settled regions which carry to it mineral substances by means of air currents; the velocity of the winds; the nature of the soil, which should be such as not to defile the air with dust, as would be the case

if it were easily moved and chalky; the lack of water covered over with dense vegetable growth in decomposition which would infect the atmosphere by giving out morbid germs; the fact that the humidity is not excessive and that the heat is not great, thus not increasing the putrefaction of the organic substances; all this compels us to admit the existence in Baguio of absolutely pure air.

And it is not only free from impurities that tend to make it foul, but the mixture of the elements composing it ought to be chemically exact in volume and weight, as the average humidity is not a high figure, and it can not be made foul by an excess of carbonic acid, as the respiration of the animals and the combustion and decomposition of the organic substances lose their power and influence in the laboratory of nature by the great amount of carbon that is assimilated in the respiratory actions of the green parts of the numerous plants growing in the mountains of Baguio.

In addition it must be stated that we have not made a chemical analysis of the air on account of lack of means, but the reasons given in the preceding paragraph are sufficient to attest its purity. Moreover, the value of these is increased by the fact, admitted by science as an axiomatic truth, that causes tending to make the air impure are less numerous in high altitudes. A practical illustration, which corroborates our observations, is found in the fact of meat being preserved. In the rainy season beef intended for food kept until the fourth day without putrefying at all. It is to be supposed that in the dry season and when the atmospheric temperature descends putrefaction would not commence until the sixth or seventh day. It is deduced from this fact that there is a scarcity of bacteria polluting the air, such as microbes engendering with their ptomaines the decomposition of meats. Certainly some people will say that this delay in the phenomena also obeys and is caused by the action of cold, an objection which is not in any way contrary to our statement, as both cold and dryness are unfavorable for the development of microbes.

Pasteur has already established the principle, by the weight of his authority, that cold is not the only cause for the desiccation and conservation of meats in high altitudes. The cause is found in the air being free from germs that tend to favor putrefaction. The less the number of these, the more aseptic and pure will be the air. The air of Baguio, in our judgment, possesses this good quality.

C.—ATMOSPHERIC PRESSURE.

Too widespread is the knowledge of the value in weight of the atmospheric pressure at sea level and the variations the barometric column suffers, according to the degrees of latitude, the elevation of the land, the hours of the day, and, in the same locality, according to the seasons, the degree of temperature in the air, the direction of the winds, and other influences, for us to stop and explain it. Of these variations, some are accidental, not showing regularity in their action, and others are daily, apparently identical in all climates whatever the latitude, excepting slight variations in those countries where the seasons are very extreme.

The first phenomenon in this regard observed at Baguio was the considerable fall in the barometric column, which went down from 758 millimeters, which it marks in the towns situated on the coast, to 644

millimeters (25.43 inches). This fall is equivalent to the diminution of atmospheric pressure, there having disappeared from the weight of the column of air gravitating over the sea the weight of that lying between the sea and Baguio. It being less compressed, therefore the thickness of its layers is less and its weight much less; containing a smaller quantity of air, the unit of volume is less dense. The falling of the barometer by reason of the altitude is subject to a regular and changeless law, with slight differences according to latitude, and according to some observers the minimum of the observations taken show 1 millimeter of fall for each 10 meters and 50 centimeters of height. We have obtained 1 millimeter of fall in the barometric column for each 12 meters of elevation.

The daily periodical variations of the atmospheric pressure which were noted have proved to be less extreme in their character even than on the seashore, a circumstance due to the column of air resting over Baguio being less—a fact all the more significant since in tropical regions the daily variations are greater, although there is but slight difference between the yearly maximum and minimum. What was observable in a very patent manner was the regularity in these variations, they reaching their maximum between 9 and 11 a. m. and 9 and 11 p. m. and their minimum between 3 and 5 p. m. and 3 and 5 a. m. The cause of this regularity in the periodic oscillation of the barometer is the same which determines identical results at all the points of the archipelago.

On transcribing the tables of observations made of the barometric pressure we ought to reduce them, as is customary, to 760 millimeters, as though the localities to which they refer were at sea level, but bearing in mind that when the elevation approaches 1,500 meters, as it does at Baguio, the calculation does not present the same assurances of accuracy as it does when the localities are at a slight elevation, we prefer to present them as they were taken. (See table on p. 129.)

Figuring in this table are the observations of the two maxima and one minimum, the other minimum, corresponding to the early hours of the morning, being absent. For fear that this might be considered as carelessness, suffice it to state, in order to excuse the omission, that the change of pressure is greater during the day than during the night, and that the changes which it is most necessary to know are the maxima from 9 to 11 a. m. and the minima from 3 to 5 p. m., as they are the furthest removed from the average pressure. Moreover, it is sufficient to know the diurnal variations shown by an ordinary period, since in these regions it may be used like a watch to tell the time.

Because of the atmospheric density, which was greater, or because the air showed a falling movement, or because the heaviness of the lower layers of the atmosphere became accentuated owing to the contraction they experienced by the falling of the degree of heat during the first fifteen days of the observation, the barometer showed the highest maxima just as the atmospheric pressure diminished somewhat, showing some maxima less elevated during the remaining fortnights, as the heat was felt a little more, or because the air had an upward movement, or because of greater condensation of the aqueous vapor in the form of clouds, or because of the generalization of the rains.

D.—TEMPERATURE.

This more than important, essential point in determining the climatology of a country was scrupulously observed. From the atmospheric temperature felt in the towns along the shore to that of the air at Baguio a great difference was noticeable, shown by a much lower temperature at the latter point, which was continuous during our stay in the settlement. The decrease in the degree of heat owes its origin to various causes, the principal among which are the latitude and altitude. In the precise case to which we refer of establishing a parallel between the atmospheric temperatures observed in the towns of the plain and that of Baguio, the factor of latitude exercises but little influence, it being necessary to advance in the direction of the poles 185 kilometers to find 1 degree of fall in the thermic column or of cooling in the mean temperature of the air. Even establishing the parallel with the capital of the archipelago, we would find that, as Baguio lies at a distance of 220 kilometers approximately north of Manila, the mean temperature ought to experience a fall of 1.5 degrees centigrade, which would be very slight in comparison with the great difference actually observed.

The fact is that the prime cause of the change experienced is the altitude. A diversity of opinion exists as to the relation between the falling of the temperature and the elevation above sea level; or rather (and let us state a truth), this fall varies according to the places where the observations were made, as different observers at various places obtain different figures. Thus, temperature falls, according to Saussure, 1 degree for every 140 meters of height. On the St. Gothard Schow finds 1 degree of fall for every 168 meters of height. On the Andes Boussingault finds the number of meters to be 175, and Humboldt 187.

On the St. Bernard it is necessary to climb 187 meters, according to Plantamour, and 181 according to others, for the thermometer to fall 1 degree. Lombard deduces from a series of observations that the heat mark falls 1 degree for every 166 meters of altitude, and Gaudier admits an average of 186.2 meters. The same disparity is noticeable with respect to the time of the year in which the observations were made, for in summer one has only to climb 159 meters to secure a fall of 1 degree, and in winter it is necessary to reach a height of 280 meters.

Difficult is the solution of the problem presented by the relation of the temperature to the altitude, for it would be necessary to solve it to know the complex causes operating over the surface of the earth to influence the absorption or radiation of heat, thereby modifying the temperature of the air. The fact is that if the atmosphere did not hold in some form or other aqueous vapor, and the phenomenon could be observed in a mass of air which rose and fell without taking or radiating heat, the falling of the temperature would be uniform with the height—1 degree for each 101 meters of elevation. Even though Gaour allows that the relation referred to is that of 1 degree for each 187 meters in the torrid zone, we are compelled to admit 1 degree for 184 meters, which seems to be the relation deduced from the observations made in the Philippine Archipelago. Were the operations made on this basis the thermometer at the altitude of Baguio, leaving out of account some other causes which also have influence, ought to mark a fall of approximately 11 degrees. And, in fact, dur-

ing the time that our observations were being conducted there was obtained at Baguio a maximum of 24 degrees centigrade, while on the plain it went up to 35 degrees and the minimum fell to 11.5 degrees, while on the plain it did not go lower than 23 degrees.

Knowing the two principal causes, latitude and altitude, which determine the fall of the temperature, and leaving aside others which exert an influence over the movement of the heat mark, such as the winds, the relative humidity, altitude, cloudiness by impeding the passage of the sun's rays or rendering difficult terrestrial radiation, the proximity of the sea, the height of the sun above the horizon, and the purely local conditions, such as the nature of the land and the topography of the same, we will now set forth the results of our observations as they were noted down, without reducing them to sea level, or without calculating the temperature Baguio would have were it right on the coast, which can also be done, knowing the altitude and its relation to the fall of the temperature of the air.

It is unnecessary to state that the temperature, which was taken down every four hours, marked by mercurial thermometers, which quickly respond to the "ambient body," had the necessary conditions of sensitiveness to show the slightest variation, and were constantly exposed in the shade above the ground and distant from such bodies as might influence them by their radiation. (For tables, see p. 126.)

NOTE.—There are evident errors in the maximum and minimum temperatures here given, as will be seen by comparing them with the four-hourly observations, but the figures are reproduced here as originally given, except that degrees centigrade are changed to degrees Fahrenheit.

Analyzing the foregoing statistics, we note the uniformity of the temperature and its regularity at the same hours of the daily cycle; the assertion that the true mean is less removed from the minimum than from the maximum is confirmed, and the known fact that temperatures observed at 8 a. m. and 8 p. m. vary little from the mean is appreciated. The uniformity and regularity may be deemed constant throughout the year despite slight changes, a circumstance due to the fact that the thermic oscillation in tropical countries is almost changeless, its origin being found in the uniformity of the length of the day.

The rise in the temperature coincides with the rising of the sun, the layers of air which are lowest or in contact with the earth becoming warm and transmitting their heat to the others, which fact finds its application in that the solar rays pass through the atmosphere without heating it until they reach the earth. The rise in the thermometer increases up to midday, after which the sun commences to descend, but as the earth at this hour still continues to receive more heat than it radiates the thermic column continues to rise up to the moment when the heat received and the radiation are equal, this is the moment of the maximum, which at Baguio generally occurs at 1 p. m., although on some few days it was delayed until after 4 p. m. As the sun descends its caloric action diminishes and the terrestrial radiation increases, wherefore the heat mark slowly falls, the descent being more noticeable during the night. For this reason the minimum temperature is reached a few moments before sunrise.

E.—PREVAILING WINDS.

The winds are very important factors in the climate of a locality on account of the changes, sometimes very sudden, which they bring

about, causing rapid variations in the atmospheric pressure which in turn create currents of air on account of the difference of atmospheric pressure in different places, all caused by the winds. Likewise they produce changes in climate by means of the large quantity of aqueous vapor which they can take from one region to another, causing the temperature to vary. It is certain that in hot climates they contribute to the purity of the air.

Winds are of very common occurrence at Baguio, as it is slightly protected, on account of the orographic conditions stated, through lack of neighboring mountains to afford shelter, and as the influence of winds is more perceptible in mountainous countries than on the plains. The prevailing winds in this locality during the time of the observation—May, June, and July—are in general regular, coming from the same directions and during the same season, and can be considered constant, since they dominate the others during the entire year. Variable winds were infrequent, for here as in all the archipelago the aerial currents are subject to the law that governs the monsoons. We will examine first the course of the winds which prevail in Baguio in order to appreciate their strength and velocity, which are the two facts to be dealt with now; what may be termed the vital characteristics of the winds, or its hygienic value, will be taken up in the proper place.

It is already known that the direction of the winds is always from the place where the atmospheric pressure is greater to that where it is less, subject to modifications by purely local causes. At Baguio, as the ground is uneven, the wind follows the directions of the valleys, and during the period of the observations it penetrated into the plateau through the two large canyons to the south and west. This direction is caused by the obstacle presented in high Mount Alagut to the current from the southwest, which it divides, as the wind can not cross its elevated summit. The winds from the northeast and east find an easy entrance, as the movement of the air is unimpeded. We beg leave to state that the direction of the winds given refers to that near the surface of the ground, and, to a certain extent, to the currents in the upper layers of the atmosphere determined by the movements of the clouds.

We present in the following tables the observations taken in the direction of the winds, deducing from them the prevailing winds during the last third of May and June and first twenty-two days in July.

In spite of the resistance which the uneven surface of the ground offers to the movement of the air, the force or velocity of the winds is greater in mountainous countries than on great plains. As the velocity of winds is greater or less the degree of heat ascends or descends, so that the knowledge of the force of the winds is the explanation of one of the causes bringing about a continued low degree of temperature in the limits of Baguio. Although we lacked apparatus for determining the velocity of the wind, it was very easy for us to appreciate it by means of the phenomena which are customarily observed in estimating the force of the wind, and which are set out in Mahon's terrestrial scale. Nevertheless, in giving the velocity, after making an abstract of Mahon's scale, we give preference to the figures in meters which appear in Fonssagrives's scale, applying it with slight modifications to the designations used by Ganot.

Therefore we divided the anemometric velocity into the following six grades: Moderate wind, having a velocity of 6 meters per second;

fresh wind, of 9 meters; strong wind, of 12 meters; very strong wind, of 15 meters; violent wind, of 24 meters, and hurricane, of 36 meters. (See tables, pp. 219 et seq.)

The greater number of calms is noted at the hour of the nightly observations. Almost invariably the setting of the sun coincided with the diminution of the currents of air, and the first hours of the day with the presence of the strongest winds. The fact is easily explained, for the morning wind ascends and blows from the plains, while the afternoon wind is formed in the mountains and descends to the deep valleys and the plains along the coast. From the middle of September to the middle of November there prevail violent winds and hurricanes at Baguio with considerable frequency. These also occur occasionally at other seasons; for example, the typhoons there a few days before our arrival and on the 16th, 17th, and 18th of July at the conclusion of the observations. The extraordinary velocity of the wind during the last storm and its variable directions do not leave room for doubt that it was one of those tempestuous whirlwinds peculiar to tropical countries and that we were relatively near to the vortex of a typhoon.

F.—HUMIDITY OF THE ATMOSPHERE AND PRECIPITATION.

Aqueous vapor is a constituent element of the atmosphere. Air that contains 100 per cent of water is saturated with humidity. Air that contains less than 30 per cent of humidity is considered excessively dry; the lowest degree of humidity yet noted was 23 per cent (Humboldt). Between the two extremes are included the dry, medium dry, medium moist, moist, and very moist airs. This classification refers to the "quantity of humidity contained in a space compared with the quantity of the space" (Weber), or "to the relation between the quantity of vapor the air really contains and that which it might contain at the present temperature" (Mahon); that is to say, it refers to the relative humidity we noted in Baguio by the use of Daniel's and Saussure's hygrometers.

It is known that the atmosphere of the Philippine Archipelago is charged with aqueous vapor, in consequence of the great evaporation of the seas surrounding it and the luxuriance of the vegetation. The maximum humidity was noted at the time of the year when the observations were made, owing to the influence of the southwest monsoon, which comes from the Indian Ocean. Taking 100 as the standard of saturation, the relative humidity in these latitudes oscillates during the whole year between 40° and 80° , extremes which not one of our observations recorded. The altitude and the lowering of the temperature also have influence on the quantity of aqueous vapor the atmosphere may contain; the higher the temperature the greater the relative humidity of the air, and even though no fixed rule exists establishing the relation between the quantity of atmospheric aqueous vapor and the altitude, the fact that the temperature is lower leads one to judge that the relative humidity in elevated localities must be somewhat less *inter alios*, because of the lack of great evaporation in such places. (Mahon.) If the statement of Mahon be true, that "at the height of 1,962 meters is reached the limit which cuts in half the amount of aqueous vapor existing in the upper and lower parts of the atmosphere," the point at which our observations were taken ought to show in the hygrometer one-third less of humidity than on the plain. But

although the fact may not be mathematically correct, the degree of mean humidity is less, and therefore the statement may be made, corroborative of the opinion of Dove, and the relative humidity diminishes in proportion to the height. This declension, or condition of the air on the heights being drier than on the plain, is the only principle among those pertinent to the subject having application to the study of the climate of Baguio.

From the results of these observations may be gleaned two facts which deserve to be recorded; one is that, because of the purely local conditions, the law of relative humidity which makes the maximum of intensity of the same coincide with the rising of the sun and the minimum observable an hour after the "orb of day passes the meridian," was not complied with, although it can be noted that the hygrometer shows a greater quantity of aqueous vapor during the night and a lesser quantity at the hour of observation in the morning; the other is, that the maximum of humidity was not in keeping in any way with the minimum of temperature, although it may be noted that the observation made at night shows the highest degree of humidity, exactly coinciding with the lowest heat mark of those noted during the three different hours when the hygrometer observations were made.

This atmospheric humidity, existing in an invisible or vesicular state, as proven by the hygrometer, when condensing rapidly by reason of the fall of the temperature, provided it does not go below zero, is formed into drops, which, being heavier than the air, are precipitated to the earth, constituting rain if the vapor was in the upper layers and dew if it was in the lower. The currents of air carrying aqueous vapor, like those which cross the seas, nearly always determine the precipitation; for this reason the rains generally occur in our latitudes with the warm and moist southern and southwestern winds. There is no necessity to dwell upon this after what has been said when treating of the seasons and the prevailing winds. Let us enumerate the observations taken in Baguio of the aqueous meteorological phenomena, making mention of the dew, of the number of rainy days or frequency of rain, and of the magnitude of the same or amount of rainfall.

The plateau of Baguio shows an abundant formation of dew which disappears promptly as the sun ascends; this abundance is characteristic of tropical climates in view of the great radiation of the earth's surface. Therefore there is nothing peculiar with reference to the locality examined, for it shows at this time of the year the two irrefutable conditions for an abundance of dew—a sufficient quantity of aqueous vapor in the atmosphere, and cooling of the layers of air in immediate contact with the surface of the soil, the temperature of which is lower than that of the so-called dew-point of the air.

With respect to the frequency of rain, the rainy days were forty-five, the number of which at first sight seems to be excessively high, but which is not so when it is remembered that the observations were made during the rainy season, and when the quantity of water which fell is considered. It ought also to be borne in mind that the number of rainy days increases with the altitude up to a certain point, beyond which it decreases again. The most characteristic phenomenon is the regularity with which the rain came on, between 12 m. and 8 p. m., generally a regularity which follows the law ruling the matter in tropical countries. On only one day, from the 16th to the 17th of July, in the midst of a typhoon, did it rain for twenty-four hours; during

the forty-four remaining days it rained; one day twelve hours; three days, ten hours; one day, 9 hours; three days, six hours, and thirty-six days from one-half hour to five hours. The greater part of the rains were squalls and heavy showers, accompanied by storms more or less intense.

The quantity or magnitude of the rains, or the height to which the water, if not vaporized or dried, would rise above the level of the earth's surface, was taken in millimeters, the pluviometer collecting the quantities following. (See p. 216.)

We repeat what is shown by the generality of climatic observations—the foregoing data are not sufficient to judge of the importance of the aqueous medium, for to obtain helpful data, which could serve as a standard from which to determine whether a region is more or less rainy, it would be necessary to know the average amount of water falling during several years. The amount of water we collected in Baguio does not seem to us excessive, in view of the season of the year; the winds prevailing at the time, which carry much aqueous vapor; the circumstance that rains are always more abundant in warm countries than in cold; of the locality of observation being in a mountainous country, where it rains more than on the plains, and of Baguio being surrounded by great forests where the aqueous vapor is precipitated much more than on lands barren of vegetation. And we say nothing of the altitudes, for, although from the observation made by Chais in Switzerland it is deduced that the amount of rain is in proportion to the height of a locality above sea level, it seems that the matter has been investigated in America, and the conclusions reached are contradictory, showing that a greater quantity of water falls in low regions than at high elevations. The certain and indubitable fact is that during one rainfall, and in a given space, a greater quantity of water is collected the nearer the point of observation is to sea level.

G.—CLOUDS AND FOG.

Taking as clearness the transparency of space, which permits sunlight to reach the earth, cloudiness will be the quantity of aqueous vapor in the atmosphere impeding this transparency; so that a knowledge of the condition of cloudiness and, if it were possible, of the quantity of light projected by the sun on Baguio would give us the exact conditions as regards clearness. We can deduce two *a priori* conclusions: The first, that, as the condition of cloudiness depends on the direction of the wind, Baguio will have a very clear horizon during the northeast monsoon, since this is a wind that blows from the mountains, and that during the months of the southwest monsoon great masses of aqueous vapor will be borne from the Indian Ocean; the second, that on clear days the light must be more intense at Baguio than in the pueblos on the coast on account of its altitude, so that its air offers less resistance to the rays of light, a fact which is confirmed by the observations of Ludwig.

The grouping of the little vesicles of water in the atmosphere is in the common forms of fogs or clouds. The former were quite frequent during the months of our stay at Baguio, owing to the atmosphere being more charged with aqueous vapor at this season, especially in its lower levels, and owing to the difference in temperature between these levels and the surface of the earth. But in spite of the fre

quency of fogs they do not cause the trouble or inconvenience that would be expected, on account of their being "imported fogs." We use this expression because they are not formed in that locality. On account of their intensity and thickness they could never be considered as mists. Nor did they ever remain on the Baguio plateau, to which they gain access through the defile on the west, but, crossing the valley at the lowest part, in accordance with the marked tendency of such masses of aqueous vapor to seek low elevations, they went through the pass to the northeast to the neighboring and deeper valley of La Trinidad. Fogs very rarely followed a different route, a phenomenon which can be explained by the action of the prevailing winds.

We must state, in order to speak the truth, that the fog of May 25 lasted twenty-four hours, and though its intensity was a regular sea fog, and that on three or four nights during the period of the full moon a light mist was formed over the current of Minac Creek, which, although it obscured the atmosphere, did not prevent objects from being distinguished across the creek with sufficient clearness. When the sun appeared on the horizon these mists disappeared quickly, without condensing in the upper layers of the atmosphere or falling in the form of light rain. The clouds were driven, as was natural, by the prevailing winds, and, ascending from the nearest part of the sea, crowned the summits of the lofty mountains, especially Tonglon and Alagut. This ascending current, bringing from the heights a large quantity of condensed aqueous vapor, appeared, with the regularity characteristic of tropical countries, shortly before noon, attaining its maximum between 1 and 3 of the afternoon, and disappeared at night; much earlier during the times of full moon and the first quarter, owing to the marked influence which the moon has on atmospheric transparency, making the opacity of the air less.

H.—ELECTRICITY.

The electrical phenomena of the air not having been sufficiently studied, its remote effects on the human organism can not be exactly determined, although its immediate effects are well known. The want of knowledge of this part of atmospheric science has made the lack of any of the apparatus invented by Delibarto Sausure for testing the electricity in the atmosphere of little importance. It was impossible, therefore, to state whether in Baguio the electricity of the air was constantly positive when the atmosphere was clear and the sky free from clouds; it was impossible to confirm the statement that the positive electricity of the atmosphere is sensible only to a certain height in spite of its increasing, as they say, as the elevation becomes greater above the level of the sea; it was impossible to note the fact of the two daily variations; it was impossible to determine whether it is true that the atmospheric electricity is positive, as a general rule, when the winds of the first and fourth quadrant prevail and negative during those of the second and third; and, lastly, it was impossible to ascertain if at the rising of the sun the air contains a slight amount of electricity which continues increasing until 11 o'clock, when it attains its first maximum.

But if nothing can be stated on the above subjects, which, after all, even if they are interesting subjects for scientific speculation, are of decidedly small practical value, as they are matters about which little

is known, as the source of electricity found in the air is unknown because electro-meteorological phenomena have been but slightly studied, differing in this respect from electricity generated by the clouds.

Thunderstorms prevailed at Baguio in all their grandeur and with an imposing appearance, as our observations were taken during the time of the change of the monsoons when electric phenomena are shown in the greatest intensity; and this coincidence, added to the fact that there is more electricity in elevated places, and that there are a greater number of aerial currents in these places which form a circuit with the earth, is the reason for the observation showing a large number of thunderstorms, without our being able to state as a law that the number of storms is in direct proportion to the amount of electricity contained in the atmosphere.

In this, as in other meteorological phenomena, we noticed the regularity of its occurrence and the almost uniform time of its duration. It appeared most frequently in the rainy season and attained its height during the changes of the monsoons. Excepting a distant thunderstorm which commenced at 11 o'clock p. m. and three which began at noon, the others occurred during the afternoon, the most usual hours being between 3 and 5. On none of these occasions was the electrical tension of the atmosphere sufficient to produce the phenomenon of an electric storm. The severe storms presented an imposing appearance, discharging electricity from the clouds in dazzling and continued flashes upon the neighboring hills and adjacent mountains. Of the thunderstorms, which appear as distant in the statistical table, there were some during which the peals of thunder could be heard by the echo of the sound produced by the mountains or by the clouds themselves, which, sometimes forming groups and at other times layers, extended large and black on the boundaries of the horizon.

We repeat what has been said in treating of other climatic phenomena. In order to ascertain the frequency of this electric demonstration, observations are necessary for many years, and only in this way can the mean time of appearance be determined with any exactitude.

I.—FREQUENCY OF FOGS.

The relative frequency of the fogs is explained by its being the time of year most suitable for their formation, as we have said, but the large number of trees growing near Baguio should also be borne in mind, its proximity to the sea, with which it is in direct communication through the valley of the Aringay River, following in general the direction of the southwest winds, which is the general course of the said valley. There were only 10 dense fogs, and generally the density was not sufficient to prevent the seeing of objects within a distance of 100 meters; regarding the number of foggy days, on one-half, or sixteen, the fog raised in less than two hours; on the other days it lasted one day, two and one-half hours; three days, three hours; one, four hours; two, five; one, eight; one, eleven; four, twelve; one, thirteen; one, fifteen; and one, twenty-four hours. It is useless to state that the fog caused, as is natural, a slight fall in the degree of heat.

Aqueous vapor formed clouds in the proportion shown in the following tables, the quantity being recorded by representing by "0" an entirely clear sky, by "10" a sky completely covered, and for intermediate degrees by adding up all visible clouds and marking the space in proportion to "10" or the entire sky. (See page 218.)

III.—HYDROLOGICAL INVESTIGATIONS.

Under this section of our report comes the enumeration of the water sources utilized by the residents of the principal part of the settlement of Baguio; the exposition of the potable qualities of the waters from these sources; the description of the course of the brooks they form, of the valleys of the principal rivers of which they are the origin, and the synthesizing of the qualitative analyses and therapeutic properties of the minero-medicinal waters in the district of Benguet, not only because of their properly coming under the medical topography of a part of the district, but also in case it should be deemed advisable to extend the projected sanitarium to the region of these waters as a retreat for those soldiers who need to make use of them by reason of the nature of the disease from which they suffer.

A.—WATER SOURCES AND POTABILITY OF THE WATERS..

At places where two of the hills of the Baguio plateau meet the underground waters of both currents join and a water source appears. The number of these is nine, of which the most available, perhaps, owing to the quantity of water it furnishes, is one situated in the eastern canyon and nearest to the hill selected for the site of the building. In view of the slight porosity of the ground, the facilities for drainage are great, affording the stratum of subterranean water a hard and compact surface of clay soil at a depth of barely 1 meter, by means of which it descends to the sources of the springs. Clear it is that the regularity of the extent of the impermeable stratum and the uniformity of the level of the subterranean water do not constantly show the same distance from the surface of the soil. This level is variable, although to a slight degree, since at some points it is more near the surface than at others, and at some periods nearer the outside, due largely to the action of the rains, as is proven by the fact that none of the nine water sources is permanent.

The infiltrated waters in the soil at the same place where the rain spreads them, retained by the impermeable stratum until they slowly make their way to the surface, constitute the sources of the potable waters of Baguio. The constituent elements of the land, although they are not quartzose or sandy, act as a filter, determining the appearance of the waters in the sources by percolation. From the nature of the land these waters are but little mineralized and, because of their method of appearing, little aerated, this latter quality disappearing as soon as they are exposed to the air in the hole or pond where they are collected. No differences worthy of record are to be noted in the quality of water from the several sources. Its temperature harmonizes with that of the terrestrial layers it crosses, and as these are relatively superficial the temperature of the water is that of the soil and almost the same as that of the atmosphere. On divers occasions we have noticed that this temperature was from two-tenths to five-tenths of a degree centigrade less than the atmosphere, a circumstance due to its crossing lands clothed with abundant vegetation, where, as we already know, the soil has a lower temperature than the "ambient."

We have not made a micrographic analysis, nor has it been feasible to make a hydrometric assay of the water of Baguio. Our investigations have been limited to an examination of the physical characteristics, to making the usual and slight chemical analyses at the sources of the springs, and to observing the effects of the use of the water—

investigating its digestible properties. The water is clear and transparent, colorless, absolutely without odor, light and fresh, and of an indefinable taste, excepting one of the springs, whose water seemed to us to be somewhat hard. When it is collected it is found to be perfectly aerated, as a few minutes of exposure are sufficient to do this; it cooks vegetables well and rapidly dissolves soap without forming grumes; its mineralization, as we have already said, is slight; it suffers no turbidity after boiling for more than ten minutes; evaporated, it leaves no kind of residuum, for which reason it can be asserted that it is not selenitic water, nor does it contain a large proportion of organic substances. Dissolving in it a small quantity of starch and treating this solution with acetic acid, the characteristic reaction which shows the existence of iodides was not observable.

In short, the water of Baguio is absolutely drinkable without the necessity of purification or the employment of filters. The only difficulty, which it is easy to remedy, which might be encountered in providing the medico-military establishments planned with water is the dissemination of the sources,¹ although all of them have their rise within the limits of the plateau, and, therefore, within a diameter which does not exceed a kilometer and a half. The quantity of water in each spring by itself could not meet the requirements of the population; that of all of them together would more than suffice.

B.—BROOKS AND RIVERS.

The small currents of water starting from the springs flowing together to the least elevated locality become the sources of the Minac Brook, which crosses the table-land from south to northeast, precipitating itself at this last point into a defile which conducts it to its confluence with the Bayaye, which passes through the canyon east of Baguio, following a direction from south to north. The course of the Minac Brook is almost straight; its waters have no great fall, owing to the slight depth of the bed of the stream and to the breadth of its bed, barely exceeding 1 meter. Such conditions are the cause of the abutting lands overflowing for some meters in extent during the rainy season; but these overflowed lands do not retain the water longer than the time sufficient for the lowering of the water level in the brook, when the rains have once ceased, in which case the water returns rapidly to the bed of the stream to be carried away by the current. There is no way for the water to stand, it being therefore absolutely untrue that there exists in Baguio a lake, either large or small, such as we have seen on a geographical sketch map of the district of Benguet. Although the health of the region is not affected by the periodic overflow of the lands adjoining the bed of the brook, this slight objection could and should be made to disappear by adding a meter to the depth of the brook.

Although the water carried by the Minac is drinkable, there is no necessity, to our minds, of employing it as drinking water; and, moreover, its use would be injurious without previous decanting and proper purifying, imperative operations in this case owing to the quality of the soil that the brook crosses. Its water, dissolving the earthy clay of the banks, becomes slightly turbid and acquires an excessively hard

¹ There is a large and permanent spring near by which the Spanish commission failed to find.

taste. The Minac flows by lands planted with sweet potatoes; it crosses pieces of ground covered with pines, which drop branches and leaves into it; on both banks reeds grow, and there are some brambles and briars. To the infectious germs, coming from the detritus left by the decomposition of organic matter, are joined those furnished, although not in large part, by the excreta of the population, since into the brook when it rains flows all the filth of the settlement which the fluvial waters can carry off.

It has already been stated that the course of the Bagayen Brook is through the eastern canyon, and that when it unites with the Minac they flow on in a northerly direction, receiving small tributaries, mostly impetuous torrents in the rainy months. After passing Luban precinct they unite with the Urungae Brook, becoming the source of the river Balili or Mapuli, which flows toward the plain of Trinidad, crossing it from south to north to the foot of Mount Luove, which studs the valley, where a great part of the waters sink, reappearing on the northern part of the said mount. The Balili is one of the principal tributaries of the Baoang, quite a large river, whose source is on the northern slopes of Mount Tabio, 18 meters above sea level. The Baoang bathes the western lands of the settlement of Tublay and descends to the plains, entering the province of Union by way of the town of Naguilian.

On the southern hills of the plateau, and on their southern sides, is the source of the Lubas Brook, which united to the Litep, Lios, and Loacon brooks, which have their sources on the slopes of Mounts Tonglon, Lagut, and Acupan, within the settlement of Baguio, forms the Mota River, which some people erroneously call the Dagupan. The course of the Mota River is first to the south and afterwards to the southwest; it traverses the whole length of the Bued defile, whose name it appropriates, descending to the plain by the Monga or Lamora settlement, and penetrates the province of Pangasinan, divided into two branches, one named the Angalacan and the other the Abiruten. The confluence of these two branches is at the town of San Jacinto, and from this point to where it empties into the sea to the south of the town of San Fabian it bears the name of the Cayanga River.

The oft-mentioned canyon, situated to the west of the said plateau, has the form of a funnel which collects at its base all the waters of its walls. One of these is the eastern slope of the mountain we call "Mirador," at whose base—a picturesque sight—a magnificent sink opens, where the waters disappear to reappear on the western side of the same mountain, and, united with those descending from the northeast slope of Mount Alagut, they constitute the Pequin Brook. At the bottom of the canyon the Pequin Brook unites with the Cagaling to form a river which bears several names, according to the points it passes, and lastly that of Aringay, as it empties into the sea through land belonging to this town of the province of Union.

Of the five principal rivers that bathe the district of Benguet, the three named—the Baoang, the Mota, and the Aringay—collect the waters of the limits of Baguio. The other two are the Amburayan and the great Agno. The former rises on the slopes of Mount Sagaban, situated north of the district, in the settlement of Cabayan; flows in a northwesterly direction, crosses the territory of the politico-military division which bears its name, and empties into the sea between the towns of Bangar and Tagudin, being a boundary of the

provinces of Union and Ilocos Sur. The Agno has its source in Mount Data, belonging to the district of Lepanto, and following a direction from north to south, crosses the whole of the district of Benguet, receiving innumerable tributaries from the mountains of the settlements of Loo, Bugicias, Sabayan, Daclan, Ambulao, and Itogon, by which it passes, reaching the plain between the towns of San Miguel and San Nicolas, and emptying into the sea at San Isidro, a town next to Lingayen, capital of the province of Pangasinan.

C.—MINERO-MEDICINAL WATERS.

The reasons justifying the framing of this paragraph have already been set forth. It seems most natural that, in taking up the study of a climatological station, the principal sources existing in the neighborhood should be reviewed or enumerated, since minero-medicinal waters are valuable curative agents, when properly used, in many diseases, especially in such as are of a chronic character.

Passing over some springs lately discovered in the bole, or bed, of the Mota River, in the Bued Canyon, the sources of minero-medicinal waters in the district are five in number, situated in the settlements of Galiano, Itogon, Tublay, Daclan, and Buguias. The Galiano spring, in the valley of Assin, 8 kilometers east of the town, which is the nearest to the plains of the province of Union, is 29 kilometers from Baguio by way of Trinidad. The Itogon spring, called "aguas de Meabe," situated in the valley of the same name, is 18 kilometers from Baguio. The Tublay spring, known by the name of "Salvadora," is on the left bank of the Mayorona River, 3 kilometers west of Tublay and 14 from Baguio, traveling in a northerly direction. The Daclan spring is 43 kilometers from Baguio, over a rugged road, and the Buguias, 76 kilometers from Baguio, in the same direction and by way of Trinidad.

Of the foregoing springs, the first three furnish an abundance of water for bathing purposes; the two last, especially the Daclan spring, which during great droughts is wont to disappear for a short time, are not so copious. All of them are on the banks of some river when not found in the bed itself. The source of the Daclan spring is sulphurous, and is at an elevation of 1,337 meters above sea level. A shed constructed of light materials, recently built in the valley of Mayabe, serves as a decent shelter for persons who need to use the waters of the Itogon spring.

All these waters are hyperthermic, those of the Galiano spring having a temperature of 76° C.; of the Itogon, 86°; of the Tublay, 72°, and of the Daclan and Buguias approximately the same temperature. All of them are also sulphydric, this element forming the base of their mineralization. With the exception of these two conditions, which are easy to appreciate, we will pass over the composition of the waters of the Daclan and Buguias springs, as it is unknown to us. The Itogon, Galiano, and Tublay springs, besides being thermal and sulphydric, are salty. This similarity in the composition presents no other than quantitative differences, except that the waters of Tublay are sulphated and those of Itogon are bicarbonated and contain iron.

The homogeneity in the mineralizing elements and the uniform thermality also determine the homogeneity in the prescribing of their waters, save in those diseases which, besides the balneo-therapeutic condi-

tions, need adequate climatological conditions. These latter may be found varied, dependent upon the altitude—the Galiano thermal waters, 252 meters above sea level; those of Salvadora, 475; of Mayabe, 645, and of Daclan, 1,335 meters. The temperature of the water, when the latter is to be used for bathing or drinking purposes, should suffer the necessary reduction. Thus, through their thermality and their mineralization, they meet the therapeutic requirements in such diseases as dermatosis of a herpetic, scrofulous, and syphilitic nature; rheumatism, paralysis, wounds, visceral swellings, and chronic catarrhs of the respiratory and digestive channels.

It would have been irregular not to have enumerated the foregoing springs of sulphuro-thermal waters, destined to render excellent service when the means of communication shall no longer offer the present discomforts in a country where cutaneous and rheumatic affections abound. On the other hand, the fact that the minero-medicinal waters of the district of Benguet, to which the settlement of Baguio belongs, are very highly recommended in the treatment of all kinds of wounds, and especially wounds produced by firearms, justifies their incorporation in this report.

(Remainder of Part III missing. Is in No. XIII of *La Correspondencia Médica de Filipinas*.)

IV.

DEMOGRAPHIC DATA.

This part of our report is devoted to setting forth a superficial study of the population of Baguio; these demographic facts consist of some slight notes sufficient for our purpose. We will examine the community in its organic aspect, its pathological conditions, and as a social group.

A.—ORGANIC CONDITION OF THE POPULATION.

The population of Baguio consists of a collection of dwellings under the name of a “*rancheria*” (settlement), because it is the place of abode of pagans called “*Igorrotes*.” This is not the proper place to discuss the ethnic conditions of these inhabitants, but we think they are of the Mongolian type and that they present characteristics assigned to the Malay races. Our opinion is established by the fact of their skin being a clear copper color. The face is wide with the central portion protruding and prominent cheek bones; the nose is somewhat flat, the hair straight, the hair of the beard and on the body being scarce. The Igorrotes are strong, with short limbs and exceedingly well-developed soleus and gemelli. The foot has a tendency to flatness, the sole thereof is large, and the great toe is further from the others than is normal. Variations may be observed in the above morphological characteristics, and some of them are fundamental, as occurs in the eyes, which have the axis either somewhat oblique, or the opening the same as in the pure Malay race; but we must confess that the dominating races, if they have existed, left few traces of their influence, as mestizo types exist only in small numbers. The children are subject to the rickets, and their stomachs are excessively developed, this predisposition absolutely disappearing on attaining young manhood.

Although their physical constitution is most suited to active temperaments, the passive predominate, and it is easy to find a large

number of persons in the settlement of a lymphatic temperament, certainly not due to climatic influences, which are decidedly tonic, but to hereditary traits in the first place, and their mode of life and predominating habits in the second. They are impressed but little by external influences in spite of having their senses very well developed, especially those of sight and smell, and are indolent and lazy; they do not use their muscular force in vigorous exercises, nor do they derive pleasure from the æsthetic sensations of the soul; they eat to live and live for sensuality. It is certainly to be regretted that with such climatic modifying influences these Igorrotes should lack those conditions of physical energy and power of resistance which would make their customs better. As for their morality, it is observable that depravity is not as prevalent as might be expected in uncivilized beings; blameworthy acts are caused by their ignorance more than their tendency to vice; they are docile, faithful, and submissive, enemies of theft, and faithful to the traditions of their race; attached to their homes and fond of their families; they are very superstitious and somewhat suspicious through the natural fear of being deceived by persons whom they consider their superiors. So peaceful is their character that they have no weapons.

The lack of a dynamometer and scales made it impossible for us to present a comparative table of the muscular strength and weight of these Igorrotes. Their stature is generally about the medium for the human race, never going to extremes, as there is not a single very large man in the settlement, nor one small enough to be considered a dwarf; perhaps this homogeneity is due, after the main reason for it, which is the law of heredity, to the orographic conditions and to the tonic influence of the climate, for although numerous exceptions may be noted, it is certain that the surrounding climatic conditions have a great influence on organic development. Whether or not there is any connection between the chest measurement and the lung capacity, the investigations made regarding their chest measurement are of considerable value in connection with their size and weight, showing their condition to be robust and physiologically normal; the measurements were taken by Tola's system, which is adopted by Vallin, using the metric measure through lack of Woillez's cirtometer and Quain's estetometer.

Applying Quetelet's observations regarding the size and weight of individuals, we find that for a height measurement of 1,547 millimeters there corresponds a weight approximately of 50 kilograms; we do not hesitate to state that upon testing this fact, the average weight obtained would exceed the figure given. Regarding the relation between the height and the chest measurement, the result obtained in the measurements taken favors the latter; to 1,547 millimeters in height there usually correspond 78 centimeters of chest measurement, and the average chest measurements reached 81 centimeters, with the additional fact that 85 per cent exceeded the mark which may be set down as normal measurement; this fact is corroborated by the excessive development of the chest in inhabitants of mountains.

Regarding the number of individuals dwelling in the settlement, their sex and longevity, we copy the following table. The figures are not entirely reliable, as they were taken from the statistical list of the inhabitants:

Measurement of 100 Igorrotes.

[Tables accompanying Part IV, Article A, in "Organic conditions of the population."]

FROM 16 TO 20 YEARS.

Number.	Height.		Chest.	Number.	Height.		Chest.
	<i>Ft.</i>	<i>in.</i>	<i>Inches.</i>		<i>Ft.</i>	<i>in.</i>	<i>Inches.</i>
1.....	4	11.45	30.71	10.....	4	8.26	27.95
2.....	5	1.02	32.28	11.....	4	11.3	29.53
3.....	5	0.78	32.28	12.....	5	0.16	28.35
4.....	5	0.19	31.5	13.....	5	2.6	29.9
5.....	4	11.84	31.1	14.....	5	0.24	29.9
6.....	4	10.08	30.32	15.....	4	11.37	31.5
7.....	4	11.53	30.71	16.....	5	1.6	32.28
8.....	5	0.63	29.9	17.....	5	4.08	31.5
9.....	4	11.57	33.07				

FROM 21 TO 25 YEARS.

1.....	4	11.45	30.71	15.....	5	3.39	31.89
2.....	3	1.22	31.1	16.....	5	0.74	30.71
3.....	5	1.02	30.32	17.....	5	0.63	30.32
4.....	5	5.56	33.07	18.....	5	0.98	34.65
5.....	5	1.22	32.68	19.....	5	2.99	34.65
6.....	4	11.05	31.5	20.....	4	11.26	31.5
7.....	5	2.64	32.68	21.....	4	11.45	30.71
8.....	4	11.3	31.1	22.....	4	11.26	30.32
9.....	5	3.76	32.28	23.....	5	3.11	33.07
10.....	5	1.34	33.86	24.....	4	11.45	31.5
11.....	5	0.63	34.65	25.....	5	1.15	31.5
12.....	5	1.89	30.71	26.....	4	11.45	30.32
13.....	4	10.97	33.07	27.....	5	2.02	30.71
14.....	4	10.85	32.68	28.....	5	4.15	31.5

FROM 26 TO 30 YEARS.

1.....	5	0.74	32.71	8.....	5	2.02	32.28
2.....	5	2.79	34.25	9.....	5	4.08	31.5
3.....	5	2.87	33.47	10.....	4	11.37	33.67
4.....	4	11.92	30.71	11.....	4	8.7	30.32
5.....	4	11.78	32.67	12.....	5	5.4	34.65
6.....	5	5.18	34.65	15.....	4	11.45	32.68
7.....	5	2.68	33.07				

FROM 31 TO 40 YEARS.

1.....	5	3.96	33.07	11.....	5	1.4	31.89
2.....	5	0.67	33.47	12.....	5	0.04	31.49
3.....	5	0.04	32.68	13.....	4	10.3	29.92
4.....	4	10.39	32.68	14.....	5	5.9	36.61
5.....	4	9.3	30.32	15.....	4	11.24	31.1
6.....	5	1.4	28.74	16.....	5	8.36	33.07
7.....	5	1.7	30.71	17.....	5	4.15	33.47
8.....	5	0.24	31.07	18.....	5	0.16	32.28
9.....	4	9.3	30.71	19.....	4	11.84	29.92
10.....	5	1.6	33.07				

FROM 41 TO 50 YEARS.

1.....	5	4.15	31.1	8.....	4	11.45	31.1
2.....	5	1.62	30.71	9.....	5	3.6	36.61
3.....	5	1.06	33.07	10.....	5	2.1	32.68
4.....	5	1.3	32.28	11.....	4	11.76	33.46
5.....	4	9.34	31.5	12.....	4	10.56	32.68
6.....	5	2.2	36.22	13.....	5	0.04	31.89
7.....	5	1.8	32.28	14.....	5	2.02	35.04

Measurement of 100 Igorrotes—Continued.

FROM 51 TO 60 YEARS.

Number.	Height.	Chest.	Number.	Height.	Chest.
	<i>Ft. in.</i>	<i>Inches.</i>		<i>Ft. in.</i>	<i>Inches.</i>
1.....	5 2.6	31.1	5.....	5 0.43	31.1
2.....	5 3.36	33.07	6.....	4 11.5	31.49
3.....	4 10.26	31.1	7.....	4 10.7	31.49
4.....	4 11.45	32.68			

FROM 61 TO 61 YEARS.

1.....	4 11.12	31.49	2.....	5 3.77	31.49
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Résumé of measurement of 100 male Igorrotes.

[Table accompanying Part IV, Article A, on the "Organic conditions of the population of Baguio."]

No.	Ages.	Height.			Chest measure (thorax).		
		Maximum.	Minimum.	Average.	Maximum.	Minimum.	Average.
		<i>Ft. In.</i>	<i>Ft. In.</i>	<i>Ft. In.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>
17.....	From 16 to 20...	5 4.1	4 8.3	4 11.96	33.07	27.96	30.71
28.....	From 21 to 25...	5 5.5	4 10.3	5 0.9	33.86	30.32	31.89
13.....	From 26 to 30...	5 5.4	4 8.6	5 1.7	34.25	30.32	32.68
19.....	From 31 to 40...	5 4.9	4 9.2	5 0.8	32.61	29.92	31.89
14.....	From 41 to 50...	5 4.2	4 5.7	5 1.95	36.31	30.71	32.68
7.....	From 51 to 60...	5 8.4	4 10.3	5 0.6	33.07	31.1	31.89
2.....	From 61 to 61...	5 3.8	4 9.1	5 1.4	31.49	31.49	31.49
	Average...			5 1.9			31.89

[Table accompanying Article B, on the "Social conditions of the population."]

Year.	Male.	Female.	Total.	Over 60 years old.
1886.....	298	302	600	31
1887.....	308	321	629	31
1888.....	257	227	484	31
1889.....	253	242	495	32
1890.....	264	209	473	24
1891.....	273	265	538	24
1892.....	269	210	479	26
1893.....	282	218	500	19

If we were certain of the correctness of the above facts, we would make the deduction that the average longevity is sufficiently great, although it seems to us that it is not an appropriate way of prolonging life to inhabit countries at quite an elevation above sea level; and, moreover, the climatic conditions of a place as to the healthfulness of a district can not be judged with accuracy from the longevity of the inhabitants; this depends on a combination of modifying hygienic conditions. The change in the number of inhabitants is worthy of note, as the population decreases considerably in some years to increase again in the succeeding years, the change being accounted for by the emigration and immigration of the Igorrotes, who change their dwelling place with great facility, and also by their concealing themselves to avoid the payment of taxes, and by the neglect or slight attention of the officials in charge of the preparation of the statistics.

B.—SOCIAL CONDITION OF THE POPULATION.

The question of subsistence is a study which could be taken up in the present paragraph as referring to the organic conditions of the population. In enumerating the flora and the fauna of Baguio we inci-

dentally mentioned the class of food used by the Igorrotes, designating the articles of food which they use for their nutrition. We then said that the "camote," especially the "gave," the potato and rice among the vegetables, and the hogs, water buffaloes, cattle, and chickens among the animals, constituted the foods. The Igorrotes like alcoholic drinks, and in their feasts make frequent libations of a liquor obtained from the fermentation of rice ("arroz-basi"). Intoxication does not seem to be considered a vice by them. Their orgies therefore resemble the Bacchanalian celebrations of olden times. Not only are they indulged in to celebrate events which are fortunate for the family and the individual, but they also constitute external manifestations of religious beliefs or form a part of the worship of the pagan religion which the Igorrotes profess. Likewise in these feasts they invoke with solemn rites, which are not pertinent to this article, from the divinity the cure of the sick, and pray to the good spirits for abundant crops, these being also the religious ceremonies with which they consecrate a new-born child, celebrate marriages, and perform the last rites over the dead.

Regarding this last matter, it is proper to speak of the mode of burying the dead. They have no cemeteries at all, the place of burial being designated in advance for each individual, now that they are wisely compelled to bury the dead before twenty-four hours have elapsed, the ancient custom or religious practice of not burying them until thirty days have elapsed having disappeared. The health conditions could be made better by ordering that interments be made in a suitable place and sufficiently removed from the places of abode. At the present time they bury dead bodies in the vicinity of the houses, and often in the very soil under the dwelling and at a very slight depth. This unhealthy custom must necessarily lead to serious consequences.

Restricting our attention to the population to be found in the "meseta" (little table-land) of Baguio, there are 49 dwellings, 3 of which consist of two stories and the remainder of a single story, since that name is not deserved by a space which scarcely amounts to a meter of elevation between the earth and the floor of the house, and which serves as shelter for the pigs and chickens; even this space does not exist in the greater part of the huts, which, for lack of space, have a single room, which serves for kitchen and sleeping room as well. Through the great filth that prevails in it and the large number of beings that at times inhabit it, it becomes transformed into a veritable beasts' den.

Pine boards are used in constructing the houses. Roughly put together, they leave abundant cracks, through which there is brought about a natural ventilation that is too active. There is employed a frame of cane, a single one, for the roof. The houses are irregularly arranged and are distributed over the three lowest hillocks of the "meseta." The 49 houses are inhabited by exactly 174 Igorrotes, of whom there are: Males, 92, and females, 82; adults, 103, and children, 71; widows, 5, married persons, 82, and unmarried (that is to say, those who on account of their age have not yet entered the married state), 85. Turning attention to the density of the population, comparing the number with the extent of the "meseta," it gives us a rate of 87 people per square kilometer—a density that, compared with other sections—the province of Manila, for instance, which shows 340 inhabitants per square kilometer—makes a poor showing; yet it is an excessive proportion, for now, making the reference instead to the 6 square kilometers

which interpose between Baguio and the nearest barrios, there is obtained a proportion of 29 inhabitants per square kilometer.

This small population, if extraneous causes do not make it disappear, as would probably occur in the years following the installation of the sanitarium, ought to move along, even if but slowly, with the progressive increase due, outside of immigration, to the sufficiently large number of births, to judge by the relation of 71 children to 103 adults. We have not obtained exact figures as to the number of births, but it should be large enough to be favorable to the increase of population, since fecundity is improved by the robustness and good health which the Igorrotes enjoy, by the absence of prostitution, the fact that military service does not exist, and that the material necessities of life are satisfied. The only contrary indications that can be presented against this assertion are the ease with which they can sever the marital relation and the fact that their unions are brought about at very early ages, generally at thirteen years—a circumstance, which, it would seem, exercises an influence on procreation, diminishing the number of children which they ought to have.

Of the evidences of intelligence there is no need to speak. Their religion is pagan, influenced by contact with Christian peoples. Their industries are those of the most remote prehistoric times, so much so that they only work in iron and copper, constructing the scanty few utensils of labor that they use—the bolo, the maza, and the sual. Their administrative organization is of the sort traditional in the archipelago for collecting a modest vassalage contribution, the insignificant amount of which confers upon them, in this respect, privileges above the Indians. Their clothes are the “tapis” and the jacket for the women and the blanket and a piece of skin or tree bark underneath, to cover the genital organs, for the men. Their commerce consists in the importation of these cloth blankets and of salt and in the exportation of some cattle and buffaloes, the little gold that they mine, the small potatoes that they raise, and the rattan that they cut on the distant hills. The old men of the “ranchería,” who are much looked up to, formerly exercised the legislative, judicial, and executive authority.

The political organization of the Igorrotes, even to this day, presents a division into two classes—the “principales,” or gentlemen, and the “caillanes,” or slaves. The first, rich and despotic, are the noblemen of the “ranchería;” the second, poor and humble, are outcasts who know absolutely nothing of the benefits of liberty, even of the most limited sort, since to their master belongs the strength of their muscles and all the exertions of their physical energy, including life itself. Such a state of society, incompatible with a humanitarian ideal such as looked to the making of laws and abolished slavery in the Antilles, must disappear, since the Igorrotes whom we are considering are not refractory to the civilization whose beneficent light would already illuminate the crests of Benguet’s mountains if kindly treatment and not repellent conduct, love and not scorn, friendliness and not ridicule, a respect for such of their feelings and beliefs as are compatible with morality, and not satire, had constituted the methods employed in the attempt to attract them.

C.—PATHOLOGICAL CONDITIONS OF THE POPULATION.

The question as to a readiness for the contraction of diseases and as to the pathological tendencies of the Igorrotes in the “ranchería” of Baguio was a subject difficult to clear up, considering the short time

that we lived among them. Their individual constitution, their failure, absolutely, to comply with the laws of hygiene, the lack of real nourishment in their food, and the venereal excesses that they practice are facts predisposed to cause morbid influences to operate with all their force, and diseases, from their beginnings, to develop with intensity. Without doubt the figures showing mortality are small (during our stay there was no death) in spite of their not having medical attendance and of the amount of meat—pork, water buffalo, or dog flesh—with which they stuff themselves, through the requirements of their religious belief, when sickness comes on. The number of cases of sickness was also small, since it went no farther than four or five, whose troubles followed a rapid course, ending in a cure. We had occasion to lend our services to a wounded man, reducing a fracture of the collar bone and putting the proper bandage in place; also to examine a man with heart disease and to visit a man with smallpox.

The existence of diseases peculiar to this region is not known, although it is to be supposed that, through lack of cleanliness and ease of contagion, there abound skin diseases, and in the rainy season there is an increased tendency to rheumatism and intermittent fevers, and bronchitis is common, as is catarrh of the linings of the respiratory organs. Upon our arrival they were just getting over an epidemic of smallpox of a mild character; an epidemic which is wont to be persistent and tenacious when it does present itself and to attack a great number of individuals, since even prophylactic methods leave much to be desired, on account of the small faith which vaccination inspires in them or on account of the scant zeal of the one intrusted with the inoculation of the vaccine lymph. They do not remember to have endured any other kind of epidemics than smallpox, enjoying a relative immunity from other epidemic diseases, it would seem, a circumstance that one can understand on account of the topographic situation of Baguio, since it is known that some infectious diseases that are epidemic in character are not propagated up above a certain level, and that in the case of other epidemics, such as cholera, their intensity is modified in a direct ratio to the altitude.

It is impossible to analyze the etiology of the cases of death here, but it is probable that the most important are those where there was inflammation of the organs of respiration or digestion. What can be stated as certain is that the affections of the liver, dysentery, and the diseases of the lowlands do not determine in proportion the number of deaths that occur among people living on the seacoast. I have here the data gathered with respect to mortality in the "rancheria" of Baguio.

Death rate.

[Table with Part IV, Article C, "Pathological conditions of the population."]

Year.	Inhabitants.	Deceased.	Rate per 1,000.
1886.....	600	.....	.....
1887.....	629	9	14
1888.....	484	8	17
1889.....	496	18	36
1890.....	473	3	6
1891.....	538	7	13
1892.....	479	9	19
1893.....	500	7	14

V.

PHYSIOLOGICAL EFFECT OF THE CLIMATE.

To determine the conditions of salubrity that a climate affords, to investigate the benefits of the natural products of a country, to ascertain the quality of its waters, an inspection of the entrails of the animals that live in a district is not made, as was done by the societies of antiquity when the sciences appertaining to medicine first dawned.

To-day the fountains of knowledge are the scientific truths, acquired by observation and experimentation, that furnish sufficient means to enable us to judge with exactness the sanitary qualities possessed by a region, investigating the purity of the air and the dryness and humidity of the same, studying the nature of the soil, noting the temperature of the air, the frequency and velocity of the winds, the magnitude of the rain storms and electric storms by examining the quality of the waters and the organical and pathological conditions of its inhabitants; in a word, all that, in accordance with our ideas and within the reach of our intelligence, is stated in the preceding paragraphs of this report.

Having analyzed the constituents of the climate of Benguet it now rests with us to determine its effects, taking into consideration that these effects are subject to great changes, according to location, and the influence of each one and all of them together over the human organism, in order to utilize all the good qualities that it possesses.

This is the end that receives the name of climatoterapia—to convert the action of the climate into a medicine, which, although complex in its composition, when utilized as a therapeutic agent to fortify constitutions debilitated by long illnesses and to cure other ailments that disappear under treatment with this modifier of hygienic conditions, is undeniably effective. A therapeutic treatment should have as its purpose not only the placing of the patients in a region where there predominate the atmospheric and telluric influences that are favorable to the restoration of health, but also the causing of patients to be sent away from those climates that are dangerous during the time of the illness or that retard complete cure. In this section of our report we shall study the climate of Baguio as a whole, the physiological effects that it produces, the therapeutic use that it can have, calling attention to the fact that it can never be prescribed with that exactitude with which are prescribed medical doses, and limiting ourselves to the matter treated of.

We shall enumerate the diseases in the treatment of which we believe the climate can be utilized by the Europeans residing in the archipelago.

A.—THE CLIMATE OF BAGUIO.

The attributes possessed by tropical climates are known. High temperature, winds, and humidity constitute their predominant elements; the first giving a very high mean, more than 25° C; the second appearing regularly, and the last being precipitated with violence in the months of the year when the sun is at its greatest altitude. If on any of these grounds the climate of Baguio were to be denominated tropical, yet the small amount of vapor of water, and the possession of an annual mean temperature not exceeding 19° C.,

oblige one to consider it from the outset a temperate climate. It owes this condition exclusively to its elevation above the level of the sea.

"To elevate one's self in the tropical regions," says Levy, "is to again place one's self in the salutary conditions of Europe."

Without discussing the absolute truth of this proposition it is sufficient to show the truth which it contains. To elevate one's self in warm countries is to pass to temperate zones, with the advantage that the elevation makes it possible to gradually vary the temperature.

During the time of our observations we had to note the following climatological characteristics in Baguio: Land relatively dry; air completely aseptic; average temperature, 18.07° C.; medium barometrical pressure, 64.45; most frequent direction of the wind, SE., and dominant velocity, moderate; average degree of relative humidity, 63.9; rainfall, 491 mm.; rainy days, 45; average condition of cloudiness, 6.6; number of storms in Baguio, 21 (the most common duration one hour); their most frequent intensity, moderate.

Let these facts be compared with the following data, obtained within the same period at Manila: Average temperature, 26° C.; average degree of relative humidity, 69 degrees; rainfall, 640 millimeters; average condition of cloudiness, 5. Adding to our facts as given those acquired with reference to the months of the dry season, and drawing a parallel between the principal climatological elements, with the results of the observations taken at Manila during a period of five years, the figures of the attached comparative statement of the climates of Manila and Baguio would be stated as approximately correct:

Climate of Baguio.

Yearly.	Manila.	Baguio.
Maximum temperature	96.8	75.2
Maximum temperature	60.8	46.4
Mean temperature	77.0	62.6
Mean barometric pressure	29.7	26.2
Relative humidity	64	60
Days of rain	160	160
Quantity of rainfall	78 to 118	59 to 78

The average temperature of Baguio is less than that of the majority of the climates in the Philippines. The same happens with the average relative humidity. These two facts—humidity and temperature—are the most essential ones for judging climates. The classification of the climate of Baguio we shall obtain from the latitude in which it is situated; from the average temperature of the atmosphere; from the humidity of the air; from its topographical situation, and from its effect on the human system. For this reason an effort was made to secure all the data indispensable to the formation of an exact judgment on the matter, avoiding, wherever possible, the deficiencies that are noted in all climatological classifications based on one sole element. Some, like Lombard, adopt the standard of classifying the climates by the nature of vegetation, dividing them into alpine and subalpine climates; others, taking into account the latitude, accept the ancient classification by zones: Torrid, from the equator to 30°; temperate, from 30° to 55°, and frigid, from 55° to the poles. Others give preference to the average temperature, and Biornan, Williams, Thomas, and some others choose humidity as a basis of their classification. As

this last standard is at the present time the one most in use, it would be well to remember that the humid climate depends more on the number of rainy days and on whether it rains on successive days, only a day at a time or a part of a day, than on the force with which the water is precipitated or on its amount.

"So, with more than enough reason," says Weber, "we can not judge of the humidity of a climate solely by the amount of rain, because in many localities of the Tropics the quantity of rain is great, although the air is quite dry."

Baguio, which considering its latitude only lies in the torrid zone, has a climate that must be classified in the following manner: On its topographical situation, insular; on its elevation above the level of the sea, high; by the average temperature of the air, whether the classification of Levy is accepted or Nochart's or that of Pontassagrive, it is intermediate between temperate and warm climates and can therefore be rated as having a moderate mean temperature; on the degree of relative humidity, dry; and on its effects on the human organism, tonic and stimulating, even during the rainy season. The capital of the archipelago, Manila, has an insular climate because of its topographical situation; a seacoast climate, with reference to its elevation above sea level; very warm, with reference to the average temperature of the air; semihumid, with reference to the degree of relative humidity; and sedative, debilitating, and depressing in its effects on the human organism.

Summary.—Baguio has an insular climate, that of an elevated or mountainous country, relatively dry, of moderate temperature, and of tonic effect. Manila has an insular seacoast climate, of a very high temperature, semihumid, and of debilitating effect. The difference in these climates arises principally from the greater or less elevation above sea level and the proximity to or distance from the coast.

B.—PHYSIOLOGICAL EFFECTS.

These are studied analytically, determining the elements which constitute the climate, following the same manner in which were stated the climatological observations.

The study of such elements as constitute the climate should be effected by investigating it at the two annual periods, the wet and the dry, but in this case the report would lose the conciseness which we have attempted to give it, and therefore there will only be made, superficially, those indications which are necessary for the greater exactness of the information without diminishing the clearness of the statement.

In the topographical situation should be mentioned the configuration and the superficial area of the surface. The region which, as we said, is considered elevated or high, is eminently mountainous and of volcanic nature, Baguio being at an elevation of 1,425 meters. The appreciable phenomena observable in the human system are a sensation of well-being; greater agility of the members; greater activity of the functions (excepting those of the skin); greater facility in the conception of ideas; less propensity to sleep, and in reference to the respiration it is more frequent, even when the respiratory cycle does not mark the difference of 3 or 4 per cent that some have noted, and as a consequence the circulation is somewhat accelerated, although the pulse never increases 8 or 10 per cent as some say. By us, at least, these

figures were not confirmed. Tyndall asserts that combustion is more complete in high regions. Marced, referring to the chemical phenomenon of respiration, says that living at great altitudes causes the elimination of carbonic acid. Boner, speaking of the mechanical phenomena of the act of respiration, thinks that the majority of the inhabitants of high plateaus have the respiratory movements slow and deep and a pulse to correspond. Let us admit these facts as positive, without noting in reference to the proposition of Marced that we have no knowledge of any studies that have been made that merit our entire credence, comparing the proportion of oxygen that is inhaled and carbonic acid that is exhausted on the plain and on the mountain. The altitude of Baguio is not so considerable that it can produce in any individual panting and difficulty in respiration, affect the quickness and strength of the pulse, produce the general tired and ill feeling that causes nausea and vomiting, or the other organic troubles incident to great heights. The greater activity in the functions of the system causes at the time an increase in nutrition of all the organs; there is more appetite; digestion is easy; the assimilation of food takes place with rapidity; liver action takes place readily; the quantity of blood increases, and the flow of blood to the organs is greater.

This increase in nutrition carries with it the fortifying of all the organs essential to life, making the cardiac contractions more intense, the lungs stronger, the stomach more vigorous, and the skin stronger, all this causing the organs mentioned to offer more resistance to unhealthful influences. Leaving the question of the nature of the soil aside, until we shall examine the conditions of health that the future sanitarium will have, we say now, only referring to the superficial earth, that the numerous resinous pine forests that grow in the settlements exercise a salutary influence by the balsamic emanations that they give, and by the changes that they cause in the atmosphere, oxygenizing it, and perhaps ozonating it, and diminishing the quality of carbonic acid.

The humidity that is always greater in forest soils is not so great in Baguio, because of the natural clayey quality of the soil and the slope of the grades, so that this region lacks the many ill effects that excessive humidity of the earth might produce. The pines, besides purifying the air, contribute to modify the local currents of the winds, engender at the time pleasant sensations and agreeable recollections of distant native lands, and for this reason stimulate the spirits, producing happiness of mind and joyful hopes.

In the proper place it was stated that the climate of Baguio was aseptic, and to this quality it can be added that if quantitative analysis had been made the air would have been found rich in oxygen. To the purity of this air Baguio owes, in greater measure, its healthfulness. It appears that bacteria do not develop at an elevation of 2,000 meters or over, and it is supposed that, Baguio being near this limit, microbes do not find the conditions favorable to propagation. Neither will miasmatic influence be felt with intensity, if this is admitted as a primordial cause in pathogenesis.

The effects of oxygenated atmosphere on the system will be to stimulate hæmatosis, oxygenating the arterial blood. The diminution of atmospheric pressure, which causes troubles of consequence in the system, when it is very pronounced, hardly produces appreciable influence on the health, limited to the fall that the barometric column experiences

in Baguio. The physiological effects produced by the barometric variations can not be isolated absolutely from the results produced by other climatic elements. In ascending, you pass from an atmosphere that is relatively compressed to one that is more rarefied. The effects of this at 1,425 meters over the level of the sea are limited to a very slight sensation of discomfort, a little fatigue, and a light headache, caused by a rush of blood to the brain; effects that are attributed to the worries and troubles that are occasioned by the trip and that remain until the establishment of the equilibrium of the pressure, which never delays more than forty-eight hours. The lower temperature that characterizes the climate of Baguio must have a favorable influence on Europeans, having an invigorating effect on the organism, increasing the appetite, and aiding nutrition. Without considering the days at Baguio as medicinal in effect, it is sufficient to note the temperature registered and to be sure that it offers good conditions, and that as to uniformity there do not exist great differences in the different localities, and that the changes experienced in twenty-four hours are not abrupt.

It has already been stated that elevation prevented the high atmospheric temperatures of the towns situated on the coasts and placed the individual in conditions identical with those he could find in a temperate climate. Therefore the moderate heat of Baguio constitutes a corrective for the harmful influence exercised by the constant and tenacious predominance of high temperatures in the towns on the plains of Luzon.

The air being temperate as shown by the thermometer, but cool when judged by the sensations it produces, the passing from a warm climate to that of Baguio causes salutary organic effects, toning the system, curing nervousness, increasing combustion, reestablishing the functional compensation between the cuticle and the digestive mucous membrane, diminishing the activity of the liver, the cuticle recovering its normal activity, unduly increased in warm climates, eruptions on the cuticle caused by its continuous activity disappearing in consequence, avoiding the weakening of the digestive organs, and contributing to the formation of a blood richer in nutritive qualities. The strength of the predominating winds in Baguio is moderate, but at the changes of the monsoons the intensity of the winds is great and we shall not deny that if the organism accommodates itself for resistance to the strong winds, against which many times the usual precautions dictated by these cases are sufficient, the intensity demands, if these effects are not to be prejudicial, a certain amount of organic resistance; fortunately, the impetuous winds and hurricanes appear only theoretical; the greater part of the year governing winds are very cool; in this case the wind helps to purify the atmosphere and by its mechanical action against the human organism it is a stimulating force that, united to the other qualities of the climate, contributes to classify that of Baguio as bracing. The winds of the northeast monsoon, dry and relatively cold, suppress the transpiration of the skin, diminishing the pulmonary exhalation, and are undoubtedly the most tonic in effect and those best suited to lymphatic temperaments. The winds of the southeast monsoon, somewhat warm and more humid, cause moral relaxation, loosen the fibers, are less healthful, and may carry through the regions they cross morbid germs, especially the malarial germ.

The effects that the humidity and the rain produce in the organism are in consonance with those engendered by the temperature, elevation, governing winds, etc.

The winds of the southeast are the carriers of the great masses of aqueous vapor, and to their humidity the coast towns owe the depressing influence which they exert in considerable measure. After all, the wet climates are not as unhealthy as the general public believes, as unhealthfulness depends on the result that is offered by all the climatic elements. Among beneficent results caused by the rains can be mentioned the purification of the atmosphere, the modification of the physiological sensations caused by prolonged drought, and the diminution of the inconveniences caused by relative humidity. In Baguio these advantages are more appreciable, because only a few times does the precipitation of vapor last more than two hours, and for that reason it is possible to enjoy the free air the greater part of the day. Humidity increases mucous secretions of the respiratory organs, takes heat from the skin, makes the system feel less stimulated, demands less expense of organic force, obliges the kidneys to perform greater work, and assists internal excretion. During the season of rains Baguio presents the same disadvantages as the rest of the archipelago for those individuals predisposed to affections of the respiratory apparatus, to taking cold, to catarrhs of the digestive canals, and to rheumatism. The want of clearness can not be determined absolutely by the observations, for they were made during the cloudiest time. It can be assumed, nevertheless, that since in the dry months the days are completely clear and in the rainy season they are but partially cloudy, the effects on the organism must be those that are determined by clear rather than by cloudy weather. To this advantage Baguio unites that of being on an elevated plateau. For this reason it receives more of the sun's rays, the temperature unites with the clearness of the sky to contribute to the well-being of the system, the last condition acting favorably on the firmness of the skin and coloring it, which is perhaps the only positive effect that can be traced to light where the negative effect is not investigated.

The effects produced or caused by fogs are not good, but these cover the horizon of Baguio so short a time and they leave so soon in search of valleys close by that in sixty days, at the time when their appearance is most frequent, there were but one hundred and sixty-five hours of fog, or seven complete days, approximately. The effects of those fogs were nearly inappreciable and they did not produce mortality among Europeans as they do in Guyana where they are daily and carry the swampy miasmas that causes one to exclaim that the fever is abroad.

Having arrived at Baguio during the daytime when the fogs last longest and are of greatest density, we did not experience the slightest symptom of the ailments that afflict all recent arrivals in foggy countries, such as sadness, melancholy, prostration, loss of appetite, digestive ailments, and strong headaches. The effects of fog are variable, and it can be said that the portions of the body that come in contact with it undergo the action of a bath; when inhaled it cools the larynx, the lungs, the bronchial tubes, and might be a pathogenic cause.

With the exception of noting the immediate effect of the electrical spark, it is difficult to appreciate the effects of the electrical condition

of the atmosphere. The sensation of activity experienced in Baguio is due in part to the positive electricity in the air. A considerable augmentation in the quantity of ozone may favorably modify certain molecular conditions of the nervous substance, the origin of neuroses. The slight oppression felt and the difficulty noted in breathing a few moments before a storm must be charged to the great quantity of vapor with which the air is filled, and to the usually high temperature, rather than to the large amount of electricity in the air. Summarizing that which has been stated in this paragraph as to the physiological effects of the climate of Baguio, it is stimulating by reason of its elevation; aseptic and oxygenating because of the purity of the air; as regards density, rare; balsamic by reason of the forests; tonic from the low temperature; strengthening on account of the dry winds, and tranquilizing by reason of the moist winds; from the much clearness vivifying and as regards electricity, filled with ozone; in brief, a climate to a high degree hæmatogenic and stimulating.

C.—THERAPEUTIC USE.

Baguio—for the degree of latitude in which it is situated—has the qualities of a good climate, and although, considering the reasons for which it is studied, the special characteristics of each season should be described, it is difficult to determine them on the one hand, and, on the other, the drawbacks that are apt to be encountered in some one of these seasons, viz, especially the rainy season, are less than are presented by other districts in the Philippines, and, apart from their not being of great importance, they may be overlooked on account of the qualities of healthfulness that the place possesses. "A perfect climate does not exist," says Weber, "some possess certain disadvantages, some possess others, climates differing as the location is changed."

Popular belief has set down the district of Benguet as a sanitary location. Those sick with dysentery and malignant fevers and with herpetic affections have looked for a cure of their ailments in the healthfulness of this district, and patients with vigor sufficient to resist a mountain climate were readily cured. We have had occasion to observe how lymphatic conditions are alleviated by this climate, and the influence exercised by it in the improvement of the sick, who, having arrived from the towns with pale complexions and in a debilitated state have, in the course of a couple of months, regained color in their cheeks and their found organic functions taking place in a normal manner. Their improvements was great, and their manifestations of joy in proportion to their age.

It is well known that mountain climates, to be utilized for medical purposes, have a maximum of height above which it is not well to pass. This limit varies according to the latitude. In tropical countries 3,000 meters above sea level is a medium; therefore Baguio is at a proper altitude to fulfill therapeutic requirements. These diseases to which reference is made in connection with the subject of altitude must be certain ones of an infectious sort, wherein the intensity of the pathological (morbid) process diminishes by reason of the elevation and the tonic and stimulating qualities of the climate. These are conditions where it is necessary to fortify the organism that is debilitated by ailments of long standing, or impoverished by physiological changes in the composition of the blood, or by a diminution in the supply of the latter.

Two other qualities can be attributed to the climate of Benguet; first, a moral one; second, a humanitarian one. Moral: Those physical and intellectual prostrations of energy, which are accompanied by loss of appetite and insomnia, and which are peculiar to warm climates, may be styled the first physiological stages of tropical anæmia. Humanitarian: In the sense that it takes from the hospital centers all the convalescents, who are exposed in them to a great number of diseases, their weakness making them susceptible to attack by pathogenic influences, and these attacks being much more intense at such times.

As a deduction from the statements made, we shall rapidly enumerate now the principal qualities in the climate of Baguio that tend to a favorable modification of the course of a disease, and to its speedy termination whenever it is opportunely discovered and offers no tendency to cling to the patient. Good results come from the climatic treatment when the sick possess sufficient individual vigor to withstand mountain climate, and it is for this reason, too, that those of great constitutional debility should not prolong their stay in Baguio, as, even though the cold winds and the variations in the temperature are not sudden, there exists a great difference between the sensations of the bodily organism here and those experienced by the people living on the plain.

1. *Convalescence in a state of debility due to an illness of long standing.*—There is no room for doubt that convalescence can be brought about more speedily and completely in Baguio than in Manila. This is affirmed not only on account of the atmospheric conditions, the elevation, dry condition of the soil during the dry season, and less humid condition during the wet season, but also on account of the active exercise that the convalescents can take. These same circumstances and the establishing of one in a mountainous country that possesses great pine forests, coupled with a bodily activity commensurate to the strength of the patient, the exercise being carried on systematically and intelligently, assist the cure of debility consequent on ailments of long standing, due to reasons of which we need make no mention. However, since all the convalescents can not be sent to Baguio, attention must be given to the disease, to the affected organ, to the constitution of the individual, and to the period of his stay. No allusion is made to the age of the person, because there is little difference between the ages of Europeans who serve in the army in the Philippines. We are of opinion that here the law established by M. Latana with reference to the duration of the illness can not serve as a basis to deduce the time of the convalescence.

2. *General pathological conditions—Organic debility, the poverty of the system, and an extremely lymphatic state.*—There is no need of insisting that the climate of Benguet produces good results in the treatment of the above conditions, when its qualities have been demonstrated to be very hematogenic if the patient possesses sufficient organic strength.

Lymphatic organisms, with scrofulitic tendencies, will find it beneficial, even though not so much, perhaps, as coast climates in other latitudes.

We admit that there could live for a time in this elevated climate those recruits who have not a chest measurement greater than half their height—less, say, than 76 cm. (29.9 inches)—for ordinary statures, even when the increase in chest measurement would be expressed only by millimeters, after a stay in the mountainous regions.

3. *Changes in and impoverishment of the blood.*—In scurvy, leucocytæmia, green anæmia, hydromia, and anæmia the results from a stay in a tonic climate are easily determined. It must be taken into account that changes in and impoverishment of the blood are not foreign in tropical climates to the inhabitants of mountainous regions, although they never suffer them with that frequency and intensity with which they are suffered by those who inhabit the towns of the plains. Those who are suffering with anæmia and are in a cachectic condition are not aided in any great measure by a stay in the mountains.

In anæmia (let it arise from general causes, be the result of malaria, or be recognized as caused by the depressing effect of a warm climate), when it passes the normal limit of climatization, called by some the physiological anæmia of tropical countries, the stay in Baguio will be the most efficacious aid to proper treatment. The green anæmia that accompanies dysentery and hepatitis finds in a loftier altitude a favorable modification of its course.

4. *Malarial conditions.*—Even though no further advantage is offered by the establishment of the military sanitarium than to lodge there individuals affected with malignant malaria, withdrawing them from places where their sufferings are more intense and locating them where they are able to obtain swift, speedy, and good treatment, it would be sufficient reason to proclaim its utility. The observation of Dr. Curren that malaria prevails on the elevations as well as on the plains is beyond dispute, but the power of the disease is less in the former location, and it can be asserted that here it is nearly always accidental. It is natural that where there are great swamps, or where a good deal of earth has been moved for making roads, or where virgin forests have been felled, there should exist, even in elevated regions, conditions for the development of malarial germs. We believe that the tellurico-meteorological conditions of Baguio are sufficient to cause the disappearance of such accretions as are difficult of therapeutic treatment and to act favorably on the course of intermittent fevers, however malignant they may be, and on malarial manifestations, even though "ascites" and "hypermegalia" have made an appearance. "The stay in the altitudes of the volcanic islands, situated some hundreds of meters above sea level, is frequently sufficient," says Dutroulau, "to cause the disappearance of a pathological predisposition and to reconstruct the solids and liquids changed by cachexy."

5. *Inflammation and "hypertrofia" of the kidneys and liver.*—We have already seen that in these "hypermegalias" a cold or temperate climate is suitable, such as the situation of Baguio. Regardless of pathogenic theory with reference to these diseases, an undeniable fact, corroborated by experience, is the positive influence exercised by the action of warm climates upon the development of liver diseases.

6. *Diseases of the digestive canal.*—It is not feasible to include in this nosologic group, owing to the complex nature of the diseases comprised in it, all those that can be cured by the influence of the climate that we are considering. We enumerate the most important. We believe good results are to be obtained where there is a tendency to a congested condition of the organs of the abdomen, caused by slowness of the circulation. In catarrhs of the membranes of the digestive tube there will be a modification of the oversecretion, above all in dry weather; and the climate of Baguio is pointed out as a remedy particularly for cases of intestinal catarrh where there is no ulceration of the intestines.

The different forms of dyspepsia, stubborn to every kind of therapeutic treatment, owing their origin to an atonic state of the muscular walls, would yield to the stimulating influence of this climate, aided by bodily exercise. It is true that there are no places where dysentery does not exist, not even the high altitudes being proof against this form of disease. "At 500 meters of elevation," says an old doctor of Martinique, "diarrheas and dysenteries are the most frequent and serious diseases." Not denying the truth of this in general, yet it can not be accepted as an axiom, nor does it mean to say that the disease in question becomes more serious as altitude above the sea level is increased. On the contrary, when no obstacles exist to the free circulation of the air currents, and the winds are not too cold nor the atmosphere too humid, the dysenteric colitis finds in an elevated climate with pure and dry air a favorable modification. A disease fostered by the individual predisposition and depending on organic conditions is, in our judgment, one of the sort to which climatic treatment offers most positive advantages.

Nevertheless, even though dysentery has lost its former importance in the islands and is no longer the real pathologic bane of the archipelago, if it attacks a European and displays in its course a marked tendency to cling persistently to him, although recognizing the advantage of a change of air in the tropical zone and admitting the benefits of elevation, and though proclaiming beneficial a stay in a climate like that of Baguio, we do not hesitate to recommend as a more rational treatment sea voyages and a speedy return to Europe. Levy says that the stations for convalescence, called by the English sanitariums, in the possessions named, are not free from diarrheas. We do not deny what is affirmed by the great hygienist, but what is true of the districts of Calcutta and Bombay, near the pestilential bed of the Ganges, may not be and is not true in the Philippine Archipelago. It can not be denied that there exists a relative immunity from diarrhea in the mountains of the district of Benguet, where are deep valleys, damp and cold, that have been inhabited for many years, yet without their inhabitants having to lament the consequences of intestinal catarrhs.

7. *Nervous affections.*—In the difficulty of respiration consequent upon the irritable condition of the pulmonary ramifications of the pneumogastric nerve, known by the name of asthma—"essential," "spasmodic," and "nervous;" in the various physical forms of mental depression due to waste of cerebral force, through overuse of the brain or sexual excesses, or in consequence of acute diseases; in the irritative manifestations of the entire nervous system, called neurasthenia; in the neuralgias that come from malarial conditions, and perhaps in persistent insomnia, the tonic influence of the air of Baguio, combined with physical exercise, would work out for these diseases and these annoying conditions a complete cure, or at least a noteworthy and lasting relief.

8. *Diseases of the urinary organs.*—It is certain that the uniform and moderate temperature of the atmosphere at Baguio, and the comparatively dry condition of the soil, must influence in a favorable manner the course of chronic catarrhs of the bladder and the urinary channels.

9. *Nostalgia and hypochondria.*—Even though reference is made to nervous conditions in the paragraph devoted to that sort of affections, nostalgia and hypochondria well deserve the distinction of separate treatment on account of the causes that produce the former and are wont to bring about the latter. The hypochondriac manifestations of

the homesick, the gloomy thoughts which oppress them, the doleful and yet pleasant memories of the the far-away native land, would find a mitigation of their moral suffering in the life that can be led in the mountains of Baguio watching the growth of plants like those of the south of Europe, enjoying the temperature of moderate climes, and indulging in beneficial physical exercise; improvement coming perhaps with the distractions that nature offers those who are in such nervous states, and we say perhaps because important factors of nostalgia are not only the climate but also the affections that cling to the Peninsula and the customs that do not exist in Oceania; the desire to return to the fatherland can temporarily be alleviated. As for hypochondria, the result is more certain; his organism being strengthened the present appears to the hypochondriac more pleasant and the future less gloomy.

10. *Rheumatism*.—Though it is certain that the climate of Baguio, as in all parts of the archipelago, is not suitable for those suffering with rheumatism, let it further be held in mind that, as far as we were able to estimate during the period of our observations, the relative humidity is somewhat less than that of the air in towns situated on the seashore, which, finally, constitutes a favorable circumstance. A stay in Baguio for those affected with rheumatism must be of recognized usefulness in the months of the dry season; above all, they have the advantage of being able to combine climato-therapeutic and balneo-therapeutic modes of treatment, uniting the healthful influence of the climate with the good effects of hyperthermal sulphurous waters.

11. *Diseases of the respiratory organs*.—In this sort of afflictions the sick need to breathe the most aseptic air possible, which occupies on that account preeminent place in climato-therapeutic research. "If we had," says Weber, "a simple means of testing the purity of the air by experiments in fermentation and by microscopy, it would be easier for us to determine the value of climates with reference to the respiratory organs." In diseases that take an acute course the indication as to what is to be done is even more plain than in those that tend to be chronic. In a catarrhal state of the bronchia and the lungs, whenever there are no cardiac complications, the climate of Baguio is indicated as the place; catarrhal asthma or anything coming from a bronchial lesion can be bettered, although here the "prescription" may not be so certain as in the "spasmodic asthma."

12. *Tuberculosis of the lungs*.—Confirmed tuberculosis is a cause of incapacity for continuing in army service, and, for another thing, there is no room for doubt that in the existence of great cavities in the lungs some other places of treatment than mountainous climes are desirable. In the incipient stages of phthisis Baguio offers the sick an atmosphere very free from germs and notably rarified. There may exist a disparity of opinions as to the advisability of sending such incipients to the "stations" of altitude in Europe; but in these tropical regions professional opinion is unanimous that, however small may be the patient's powers of organic resistance, climates at an altitude can be employed, since they readily sustain the decline in temperature and the atmospheric changes are not so abrupt as to make their influence feared as prejudicial. And it may be understood how this can be so, because temperate climates are beneficial to those in the first stages of consumption—an opinion that to-day stands acknowledged, contrary

to the idea of the old school ("antiguos"), who considered warm climates to afford best conditions for the residence of patients of this sort. It is true that the altitude, the tonic property of the air, the moderate temperature, free from great and sudden changes of the thermometer, are things that urge the benefits to consumptives of staying in Baguio; but there must be prejudicial to them here, as elsewhere in the archipelago, the violent rain storms such as are common in the Tropics and the great velocity of the winds that blow in these regions during some periods of the year.

From the observations recorded by some physicians it is either thrown into doubt or given confirmation, as we see it that in climates that unite the characteristics of Baguio the hemioptises are less frequent and the copious sweats are lessened. The diminution of the hemioptises has been established by Jourdanet, in Lima, he noting that the diminution changes into increase up to a certain height in proportion as the atmospheric pressure is less. For the rest I have here an opinion about the subject, published by an authority so competent in the matter as is Weber: "In a former period great importance was assigned to a pretended immunity from consumption afforded by mountainous climates, and we ourselves have regarded this immunity as of more importance than it seems to be in reality." It is undeniable that the climate of Baguio must be extremely useful in cases of pre-disposition to consumption, because of its stimulating the appetite, bettering the nutrition, and favoring the increase of the muscular energy of the sick by toning up the fibrous structure.

Many other pathologic states and morbid processes would find their cure, or at least noteworthy relief, in a more or less lengthy stay under the influence of the climate of which we are treating, but they are of the sort peculiar to the female sex, some of them, and others those of children; and let their enumeration rest at that on this occasion.

Those persons ought not to be sent to Baguio for whose afflictions the climates of the mountains or high elevations are not indicated as proper treatment. Among those so "counter-indicated" we shall cite only aberrations of the mind, which are aggravated in elevated climates, for which reason the future sanitarium can never be converted into an insane asylum; the only mental disturbances in which a satisfactory result might be obtained are those which belong to the class caused by a permanently congested state of the brain. As has been seen, we may use, with slight variations, as a rule for determining the kind of ailment which would cause entrance into the establishment to be prescribed for sick Europeans, the table of diseases of January 13, 1885, on which is based the plan for returning to Spain the members of the Peninsular army as being of a constitution incompatible with the Philippine climate. Many would find a cure, because the most valuable means of regaining lost health, in these countries, is a return to temperate climates, and it may well be said that Baguio operates as a "substitute prescription" in such cases, the soldiers being placed thus in condition to resist the mortal climatic influence of the torrid zone, through which they would be able to stay all the obligatory term of their service in this army, there being left as a last recourse for those who should not find a cure in the virtues of Baguio's climate—the return to the motherland.

VI.

THE SANITARIUM.

The climate of Baguio being classified, it comes in order now to set forth that it can be considered a summer station, it being held in account that the sick find there a lower temperature, and that it can be regarded as a station of fixed character and permanent residence, a place where the soldier, once installed, is to remain until his cure, his death, or his return to the Peninsula. Summer stations owe their quality of being cool to the latitude with respect to the place of origin of the disease if they are on the plains, and to the altitude if in the mountains, conditions which a climatic station must meet in order to be fixed or permanent. These conditions Baguio meets in a high degree.

The conditions of salubrity must be greater in an establishment destined for convalescents than in quarters where are kept the well, and greater than in the hospitals where the sick are lodged, since the state intermediate between health and sickness is the state most exposed to pathogenic agents. This understood, it will not cause surprise that, from the location and the lighting of the structure, the latter such an essential to salubrity and to the opportunities for recreation that can be offered the sick, we have examined it with the most scrupulous care and have made our choice with the greatest possible nicety, seeking to make it meet the most exacting hygienic requirements.

Hospitals of great size are marked for disappearance, are generally unhealthy, since they can not be well ventilated, and are unduly crowded and have so much the more tendency to bad odors and infection. In this hygienic truth rests the origin of the tendency to use small places for dealing with disease, in the way of isolated tents, where, besides their being placed remote from the centers of population, the tents are set apart and in their circumference are spaces devoted to garden culture; and such conditions as these our "sanitarium" will meet so far as possible and will not be an unhealthy establishment of the first class, such as are the greater portion of the hospitals, and, given its limited extent, neither will it be found to be converted into a focus for pathogenic agents. In Baguio the sick will find a climate similar to that of the south of the Peninsula, permitting them to stay many hours of the day in the open air, and in the "sanitarium" they will find the most careful hygiene, abundant nourishment, proper medical attendance, and a suitable staff personnel.

We shall devote this portion of the treatise to considering the location and the lighting of the structure; the conditions of salubrity and recreation which it must possess, and the supply of water and of fuel, enumerating first the principal climatic stations of similar sort.

A.—SIMILAR CLIMATIC STATIONS.

We shall consider these as divided into three groups, according as the similar station recognizes as the cause its situation, its climate, or its purpose.

The most numerous are those similar through their topographic situation and the altitude at which they are found. The greater number of these are met with in the great ranges of the Andes and the Alps—Loasche, at 1,359 meters above sea level; Chaux de Fond, at 1,034;

Grinwald, at 1,046; Chamounix, at 1,052; San Bernardino, at 1,754; Saint-Moriz, at 1,786, and some others, placed at these same heights in the Rocky Mountains (America).

Among those similar through climatic conditions there figures first, even though situated on the seashore, the city of Cape of Good Hope, in which is enjoyed a mean annual temperature of 19° centigrade (66.2° Fahrenheit). The "meseta" of Anahuac, a name given to the table-lands of Mexico, offers us in its group the following stations: Orizaba, at 1,279 meters; Talapo, at 1,340; Queretaro, at 1,904; Morelia, at 1,950, and Mexico, at 2,200; this last has climatic factors of most importance—temperature, barometric pressure, humidity—very similar to those of Baguio. In Mexico the mean annual temperature is 17° centigrade (63.6° Fahrenheit), the mean in the cold season being 15.59° centigrade, and the mean in the warm season being 66.2° Fahrenheit; the mean barometric pressure of the warm season is 585 millimeters (23.03 inches) and the hygrometer oscillates—the mean mark—according to the months, being from 65 to 81 per cent. In Spain there is a balneo-therapeutic station, Panticosa, which has an elevation of 1,600 meters and a mean barometric pressure of 25.2 to 25.39 inches, which presents in the summer months a mean temperature of 59° to 68° Fahrenheit.

Of stations similar on account of their object there ought to be cited, outside of the sanitarium recently constructed in the province of Roussillon (France), the sanitary stations of the English East Indies. These stations of the highlands, situated in a mountainous country at various heights, are built not so much for the sick and convalescent, but for the acclimatization of the troops. Among the principal ones are Subathoo at 1,320 meters, and Landaur at 2,400, in the territory of Bengal, and various "hill stations," situated between 1,118 and 2,730 meters in height, in Bombay.

B.—LOCATION AND LIGHTING.

There might have been chosen as the place for construction the "shed" of a hillock, but the objections, some of which were not less than serious, that this location presented were such that at once it was sought to obtain a site of greater adequacy within the "meseta." Three points offered themselves for this—one of the hills of the south, which is 20 meters high; the hillock on the west, 33 meters high, on whose summit is located the "tribunal" of the "ranchería;" and the hillock on the east, which has, as we have already said, an elevation of 40 meters above the bottom of the valley.

The first of the hills designated is too low, and is the place through which the clouds cross the valley—a feature quite worthy of attention—and hardly to be recommended, while, in case of its being chosen, it would have been extremely costly and difficult to remove the excreta which the dwellings of the Igorrotes had accumulated; in the second, which the "tribunal" occupies, have been placed the greater portion of the houses of the "ranchería," and it was necessary to do a good deal of grading in order to make the ground level; therefore we have given preference to the plan of situating the building on the plain at the top of the hillock. This place, which, beyond its not offering the foregoing objections, presents the advantages of being the loftiest of the three; of being farthest removed from the houses of the "ranchería," farther away from the land subject to the overflows of the Mina

brook, and nearer to the great groves on the east and to the splendid pine forests that are traversed by the road to Loacan, and of having close by two great ravines which assist the removing of the excreta, and has at its back a good and abundant spring, which it will be preferable to use.

A point essential to the proper lighting of a building is its exposure to the influence of the sun's rays in a manner modified with reference to the zone in which it is put up, care being taken in warm climates to diminish the intensity of the solar action and in cold climates to secure the fullest possible exercise of this action during all the hours when above the horizon soars the "day-star." So the principal side of buildings is lighted on the north in warm countries and on the south in cold countries. But this general rule acquires in practice some modification when attention is had to the topographic conditions of a locality, since it is a requisite indispensable to good lighting to avoid the most troublesome climatic element. Of course, when this latter is the winds, it does not matter if the building is lighted from the side on which the winds prevail in the district, since, there being precautions against gales and hurricanes, the remaining conditions favor a natural ventilation; on the other hand, though there is no lack of authorities on hygiene who believe that establishments of the sort of which we are treating ought to be located facing the prevailing winds, we prefer, following the opinion of other authorities, that the atmospheric currents "bathe" the whole structure.

Turning to the preceding arguments, and to the fact that it is useless to hunt in the "meseta" of Baguio for protected sites, and that the building can not be constructed under the immediate shelter of a hill; to the fact that it is desirable that the rear be very close to the ravine through which disposal is to be made of the excreta, and to other concurrents which, though of less importance, are yet to be considered, through classification with the esthetics of the establishment and the increasing facility for its service, the major axis of the principal edifices has been laid out from north to south, the main side facing the west, commanding the entire "meseta" and the "ranchería" and fronting on the point where the road that is to establish communication between Baguio and the towns of the plains will have access.

C.—CONDITIONS OF SALUBRITY AND RECREATION.

The conditions of salubrity of Baguio have been enumerated in the various paragraphs of the treatise. Those of the establishment, naturally, must be most fully assured in order to fix upon its location, and the construction, too, must be according to rules of the hygiene of diseases, at the same time making the conditions compatible with the greatest possible economy for the public treasury. However we shall repeat ourselves because of considering it pertinent to dwell upon the qualities of the soil, a few words will be said about the location and the conditions that will surround the structure; and we shall devote a paragraph to inquiring if the nearness of the lands overflowed by the Minac Brook may offer objections from the standpoint of salubrity.

It is insistent that there must be satisfaction with the soil on which the structure is to be located, because a man feels, in an effective and direct way, the influence of the soil on which he lives. Yet, when the building is to be placed on the summit of a hill and the clayey nature

of the soil makes it impermeable, there is not any fear that the waters of rains, however abundant they may be, are going to be split up into bits and turn the ground into a miry mud hole. The waters can easily be diverted into slopes of descent and glide through the spring sources. The earth is dry, impermeable, and will become still more impermeable for the foundation, employing the means at disposal for it, thus giving fulfillment to the axiom that "the salubrity of a soil is in inverse ratio to the quantity of water that it contains."

In the conditions of salubrity of this structure, outside of the appropriate hygienic requirements that will govern its construction, we ought to make reference to how necessary is the procuring of good ventilation, and to the avoiding a crowding up to a pathologic point and the sick breathing an air that is confined and charged with organic, fermentable matter. Establishments of this kind are healthy in proportion as they contain few sick for the surface that they cover; given the surface extension of the projected building and the cubic space of the interior allotted to each occupant, there is no need to fear crowding. Another one of the conditions of salubrity that has had much consideration has been facility for quick removal of the excreta, assured by the slopes that the ravines of this same hill afford and being sufficient to give to the sewerage system the grade necessary for the dirty water to move quickly. It is not necessary to say that the exit of the excreta must be permanent in structure, and, the principle of health that says "Everything for the drains" receiving its fulfillment, through them will pass the greasy water, the filthy water, the liquid waste of the kitchen, the water from wash basins, baths, etc. In places not very remote from the building can be laid the waste heaps into which will be piled the product of the sweepings, the manure from the stable, and every kind of waste. The prevailing winds, the southwest and northeast, before coming to the building, cross a wide stretch of ground covered with pines, a thing that modifies their intensity and is helpful to the conditions of the "ambient," for the rays of the sun that bathe the place through the whole day will not occasion great annoyance, because of the modified temperature of the atmosphere, while they constitute a powerful and energetic disinfectant.

Nor are the little pools that the Minac Brook forms in its short descent prejudicial to the conditions of salubrity of the sanitarium, formed some distance beyond the confluence of the greater portion of the springs of the "meseta;" the building has been given a location at a distance from this ground that is subject to overflow, being 350 meters away and, at a height of 40 meters, not being influenced, for reasons given, by whatever marshy air there might be. Fortunately there is here no disease-producing pool, and, though even the slight work of draining which ought to be done should not be undertaken, so as to satisfy all the most jealous demands of sanitation, there would be no need to fear the diseases that are engendered by the humidity of the soil—a thing that is favorable to the growth of certain pathogenic bacteria, to the increase of every sort of fermentation, and that tends to make the humidity of the lower layers of the air greater after all—be the marsh diseases due to the decomposition of certain vegetable species, as is the opinion of Boudin, or to the disorganization of a whole world of micro-organisms, as Lemaire believes, or to the existence of a minute something very similar to the *Cactus peruvianus*, the idea Bolestra adopts, or to an alga of the genus *Palmella*,

as Salisbury argues, or be it considered that the cause is the bacillus of malaria discovered by Klebs and Tommassi—anyhow it is certain that on the banks of the Minac there is no other kind of vegetation but rushes and grass, which can not favor the growth of the germ of marsh diseases (though we were partisans of certain of the theories), and the bacillus of malaria (if we admit its existence) seems to be found always in all soils, be they or be they not marshy, which offer certain conditions suited for its growth.

The most important condition of salubrity would be that which the "beau ideal" of hygiene declares, sick retreats temporarily located. This hygienic principle is based on the fact that the soil under this sort of establishments is converted into a deposit of infectious germs, comes to be saturated with pathogenic substances, and the earth's lack of free surface favors the putrefaction of organic materials. In favor of a perennial or permanent location, there may be brought forward in Baguio, outside of the weighty reasons to be urged from the standpoint of economy, the impermeability of the soil and the freedom from "ambient" of a nature favorable to the increase of infectious diseases.

As conditions of salubrity, too, may be considered those of recreation, since not only as a hygienic requisite but also as an aid to proper medical treatment, it is important to surround convalescents with all the means possible for the enlivenment of the spirit and the enjoyment of the mind. Beyond the fact that the entire "meseta" can be walked over and all the hills can be climbed, there may be used as walks the roads to Antamoc, to Itogon, and the one which crosses the "ranchería" of Baguio, all of them offering slopes that are gradual and are going to be graded still more; the first two cross meadows adorned thickly with pine trees, in which are picturesque places that invite one to place benches for pedestrians to rest upon. The spots where there are springs can and ought to be changed into places for recreation in which a delightful coolness could be enjoyed. We have already spoken of the magnificent panorama that spreads out into the distance from the summit of the mountain called "Mirador," situated on the westerly side and some 2 kilometers distant from the hill chosen for the location of the sanitarium. Climbing the hills to the south there stretch out extensive and beautiful panoramas like those of the Alpine regions. The woods are not impenetrable, nor too dark, and, for the kind of vegetation that they contain, not damp. The building will have galleries that can be opened or closed, and, with sufficient outward extension, can be made to serve for promenades on rainy days. The things already planted and the flowers that ought to be grown plentifully in the neighborhood and in the courts of the establishment itself will take away from it the gloomy, somber appearance that places for the care of the sick are wont to have. The exercise of the convalescents in the open air can be varied from the active sort, in which the more energetic climb on foot to the top of the highest hills, to the mixed form of exercise, consisting in part of walking and in part of riding after horses, and the passive form of exercise, where one lets himself be carried in a hammock or litter by the submissive Igorrotes of the district.

D.—SUPPLY OF WATER AND FUEL.

Pine timber abounds in all parts of the "ranchería." There need be no fear that there will be lack of fuel for all those uses to which it has to be put, no matter how great quantities may be necessary.

The water supply is a matter of the greatest importance, since on its potability and its plentifulness for all purposes depend in great part satisfactory conditions for salubrity in buildings used to shelter a good many people. In so far as concerns the quality of water, it is unnecessary to insist on what has already been said. The matter of quantity deserves two words: The wants of the present population are more than abundantly satisfied by using the waters of eight springs. Two hundred persons more added to the number of consumers would not necessarily make the supply too small; but bearing in mind that there are many ways in which water is needed in establishments of the sort we are considering, and that more water is always wasted when there is an abundant supply, we are of the opinion that the estimate of Darcy, allowing 30 liters daily to a person, is yet too small. For personal cleanliness, the needs of the kitchen, the washing of clothes, the irrigating of the garden, the needs of pharmacy, the service of baths and closets, etc., we stipulate—nor do we think we are putting it excessively—50 liters daily per person, which raises to 10,000 liters in the twenty-four hours the total amount of water necessary.

We are fully convinced that the stated amount of water can be obtained from springs, there sufficing for this end a little work for the purpose of admitting daylight and at the same time making small places gather the streams of water; but for the sake of avoiding unforeseen contingencies and preventing a shortage of water, such as might occur in any year of obstinate and prolonged drought, let the establishment be provided with a good-sized reservoir sufficient for all purposes, with the exception of the use of the rain water for drinking, on account of its not being easily digestible because of its lack of salts. The water must be carried in carts, wheelbarrows, or on the shoulders, since, in spite of the short distance between the establishment and the springs, which is not a bit over 1,000 meters, we can not think of conducting the water in underground pipes nor in aqueducts, as these would increase greatly the estimate for the undertaking.

V.—COMMUNICATION BETWEEN BAGUIO AND THE PLAIN.

Without praising ourselves, we beg to state that this very important part of our work deserved special attention, and we performed it with all the zeal possible without paying attention to the inconveniences which we had to suffer in journeying through almost impassable and almost inaccessible places, and having the misfortune to suffer from the rigors of the violent atmospheric conditions of the elements at the time of the year when we made the trips, crossing on innumerable occasions all the canyons and ravines offering probability of establishing a means of communication between the settlement of Baguio and the pueblo situated on the coast. The examination of these canyons was carried on very carefully, weighing the advantages presented by each one without consulting in advance the opinions of others before we arrived at a definite conclusion. I have here the plans referred to and the conclusions on the same:

First. From Baguio to Bauang by Naguilian. This route would have to closely follow the direction of the present road, passing through La Trinidad and Sablan. Its excessive length would be increased considerably in order to avoid the sides of Mounts Saplit, Palali, and Santo Domingo. The cost of its construction would be very great, it presenting, further, the bad feature of being the road which would join the

main road from the northwest of Luzon or the railroad from Dagupan to Laoag, farthest to the north.

Second. From Baguio to Pangasinan by Itogon. To survey this route it was necessary to cross a great number of spurs of the central mountain chain of Caraballo. It being difficult to overcome the grades of Mounts Balicaucan, Birag, and Bilauan, a great amount of labor would be required; having crossed the eastern slopes of Mount Acupan, the river alongside of it flowing between vertical rocky cliffs in which are many crevices compelling descents many meters in height. The route would be better than the preceding. It descends into the province of Pangasinan between the pueblos of San Nicolas and San Manuel at a considerable distance from the railroad, whose nearest stations are Calasiao and Dagupan.

Third. It follows the same course as the preceding until reaching the precinct of Loacan, a part of the settlement of Baguio. From this point, following the course of the Mota River, the entire length of the Bued canyon had to be passed over, which presents the same rocky sides and almost identical topographical conditions as those presented by the canyon of the Agno. It was necessary to go along the sides of the elevated Mounts Lusuc, Acupan, Alud, and Casangan, over the summits of which the Igorrotes cross by a trail which is impossible to convert into a road. The railroad station nearest is that of Dagupan or, in case the line is extended, San Fabian.

Fourth. From Baguio to Agoo by San Pascual. The cost of this route is much less than the preceding ones, and although it presents difficulties worthy of consideration it would be possible to carry it to a conclusion. Leaving Baguio and going along the southern side of one of the mountains, alongside of Mount Saplit, and following the right bank of the Tiquin Creek, the road can be laid out under most desirable conditions, without great expense and with the grade desired, until reaching the confluence of this creek with the Cagalin River. After crossing the latter it ascends to the depression or pass formed by Mounts Bayayon and Lomboy, an ascent which presents some of the greater difficulties in laying out the road, and it then proceeds by Mount Salet or Apui and the precinct of Bilu to the settlement of San Pascual. From this point to Tubao the ground is rolling and there are some summits of the last foothills of Mount Bayayon which have to be crossed. From San Isidro to Tubao or Agoo it follows the course of the small river of the same name, over which it would perhaps be necessary to construct several bridges.

Fifth. From Baguio to Aringay by the pass of Galiano. The route is the same as the preceding from Baguio to the confluence of the Tiquin Creek with the Cagalin River. From this point it continues along the bank of the river, which lower down is known as the Aringay, the route being laid out at the height deemed convenient and with the grade that may be required, crossing the valley of Aniza, skirting Mount Bayabas, and proceeding to the pass of Galiano without descending to this pueblo, which is situated at a height of 138 meters above sea level. Two directions can be followed from the pass of Galiano, one by Mangas to the village of Carosipan and thence to Aringay, the other by Macabato to Caba and Aringay.

These two last-mentioned routes, numbered fourth and fifth, upon reaching the valley of the Aringay River, follow, the first, for the most part, the left side of the river, skirting the foothills and sides

of Mounts Alagut, Bayayon, and Salpangan, and the second, along the right side by the foothills and sides of the Saplit Belbel and the mountains of Galiano. Which of these two routes offers greater facilities for its construction, causing less labor and expense, must be determined by further investigations in the dry season, which is the only suitable time for this class of work, which must be done by competent persons able to lay out in a definite manner the route for the road to be constructed hereafter for placing the military sanitarium of Benguet in communication with the railroad.

Having designated the course for the road and given a preliminary plan for the building, this portion of humble labor would not be complete if we did not give an approximate estimate of the cost of the work. In making an estimate of the amount necessary for the construction of the building, it must be borne in mind, as was said in the proper place, that the timber obtainable in the mountains near the place of the site of the building would not cost more than the expense sustained in transportation, which could be done at little cost by utilizing local means of transportation. Also that the soil contains great quantities of clay; that a short distance from the plateau there is an abundance of limestone, and that sand is readily found in the same locality. These circumstances make the expense of manufacturing the bricks and the securing of the lime required very trifling, and Manila would, therefore, be the market only for the iron, iron ornaments, and the paints. These are the conditions that we have considered in addition to the kind of building proposed in estimating the cost of each square meter of surface. This surface being 2,418 square meters, and estimating \$28 as the cost of the construction of each square meter, the total cost of the building would amount to \$67,704.

The length of the road will certainly not exceed 40 kilometers. With this length, and under the conditions mentioned about the topography of the course, the nature of the soil, the ground under the surface, and the work to be performed, we can estimate \$2,000 per kilometer as the expense to be incurred in opening the road, provided that the undertaking is intrusted to the penal forces of the Corps of Engineers.

Increasing the estimate for the construction of the building \$2,296, or to \$70,000, in order to cover unforeseen expenses for the foundation or incurred during the construction, the total cost of the building and the road will be the following:

Estimate for the road.....	\$80,000
Estimate for the sanitarium.....	70,000
Total.....	150,000

In concluding our duty we feel that we must reiterate the expression of the most sincere appreciation for the marked distinction with which we were honored, and we regret that this report does not fulfill, scientifically or from a literary standpoint, the opinion of Your Excellency as to the character of the work demanded by this important matter; and we hope the magnanimous wishes of Your Excellency can be soon realized by the construction of the military sanitarium, which in addition to complementing the medical attendance commenced in the ambulance upon the battlefield, would constitute a manifestation of loving charity and sacred duty, satisfied by the fatherland for those of the sons who lose their health in the defense of the national integrity in this beautiful piece of Spanish soil in the ocean.

VI.

METEOROLOGICAL TABLES.

ATMOSPHERIC PRESSURE.

Observations on the climate at Baguio, Benguet—sixty days.

[Tables accompanying Article C on atmospheric pressure.]

Date.	9 a. m.	4 p. m.	10 p. m.	
	<i>Inches.</i>	<i>Inches.</i>	<i>Inches.</i>	
May 24	25.43	25.4	25.39	
25	25.37	25.39	25.39	
26	25.43	25.32	25.43	
27	25.4	25.43	25.45	
28	25.49	25.45	25.51	
29	25.51	25.45	25.47	
30	25.47	25.45	25.45	
31	25.47	25.35	25.47	
June 1	25.43	25.35	25.39	First fifteen days: Maximum observed, 25.51 inches; minimum, 25.31 inches.
2	25.39	25.31	25.43	
3	25.43	25.39	25.45	
4	25.43	25.37	25.43	
5	25.39	25.39	25.43	
6	25.43	25.31	25.39	
7	25.39	25.35	25.39	
8	25.39	25.39	25.43	
9	25.45	25.35	25.41	
10	25.41	25.35	25.39	
11	25.43	25.35	25.41	
12	25.43	25.39	25.43	
13	25.45	25.41	25.43	
14	25.43	25.33	25.39	
15	25.39	25.35	25.41	Second fifteen days: Maximum observed, 25.49 inches; minimum, 25.33 inches.
16	25.39	25.35	25.41	
17	25.43	25.43	25.49	
18	25.43	25.37	25.41	
19	25.43	25.39	25.39	
20	25.47	25.43	25.43	
21	25.43	25.35	25.39	
22	25.43	25.37	25.43	
23	25.43	25.41	25.45	
24	25.43	25.39	25.43	
25	25.43	25.41	25.39	
26	25.46	25.43	25.47	
27	25.47	25.39	25.43	
28	25.45	25.39	25.43	
29	25.43	25.39	25.39	Third fifteen days: Maximum observed, 25.47 inches; minimum, 25.31 inches.
30	25.43	25.39	25.35	
July 1	25.38	25.35	25.39	
2	25.39	25.35	25.41	
3	25.39	25.31	25.35	
4	25.39	25.35	25.41	
5	25.39	25.35	25.39	
6	25.41	25.34	25.39	
7	25.43	25.37	25.39	
8	25.35	25.34	25.37	
9	25.35	25.27	25.39	
10	25.35	25.28	25.35	
11	25.39	25.31	25.35	
12	25.39	25.35	25.43	
13	25.35	25.35	25.39	
14	25.39	25.31	25.41	Fourth fifteen days: Maximum observed, 25.45 inches; minimum, 25.12 inches.
15	25.35	25.28	25.31	
16	25.28	25.2	25.2	
17	25.2	25.12	25.24	
18	25.35	25.35	25.39	
19	25.39	25.37	25.43	
20	25.43	25.39	25.43	
21	25.45	25.43	25.43	
22	25.39	25.39	25.39	

Temperature observations extending over 60 days, from May 24 to July 22.

Date.	4 a.m.	8 a.m.	12 m.	4 p.m.	8 p.m.	12 p.m.	Maximum.	Minimum.	Mean.
	°	°	°	°	°	°	°	°	°
May 24	53.6	64.4	69.8	69.8	68	62.6	74.8	52.7	63.5
25	53.6	68	71.6	66.2	64.4	59	72.5	52.7	62.6
26	59	64.4	69.8	64.4	64.4	59.9	68	57.2	62.6
27	59	64.4	69.8	62.6	64.4	60.8	69.8	57.2	63.5
28	59	68.9	72.5	69.8	68	63.5	71.6	57.2	64.4
29	61.7	68	72.5	70.7	68	62.6	71.6	60.8	66.2
30	62.6	68.9	72.5	70.7	66.2	62.6	71.6	60.8	66.2
31	59	68.9	72.5	68.9	64.4	62.6	72.5	58.1	65.3
June 1	60.8	68	72.5	71.6	68	63.5	73.4	59	66.2
2	61.7	68.9	70.7	73.4	68	63.5	72.5	61.7	67.1
3	62.6	68	73.4	71.6	66.2	63.5	75.2	60.8	68
4	61.7	68.9	72.5	73.4	68	61.7	74.8	59.9	67.1
5	62.6	68	74.3	67.1	64.4	63.5	75.2	60.8	68
6	63.5	68	74.3	71.6	66.2	61.7	75.2	60.8	68
7	63.5	68.9	74.3	74.3	66.2	62.6	75.2	61.7	68.9
Mean	60.26	67.64	71.78	70.62	66.2	62.06	72.86	58.64	65.84
June 8	59.9	67.1	73.4	67.1	66.2	61.7	75.2	59	67.1
9	59	68.9	70.7	73.4	65.3	62.6	71.6	57.2	64.4
10	59	68	73.4	73.4	64.4	62.6	74.8	58.1	66.2
11	61.7	68	74.3	72.5	65.3	63.5	75.2	59	67.1
12	62.6	68.9	74.3	70.7	64.4	61.7	75.2	59	67.1
13	60.8	68	73.4	72.5	64.4	63.5	74.8	58.1	66.2
14	61.7	68	73.4	67.1	63.5	61.7	73.4	57.2	65.3
15	59	66.2	70.7	66.2	63.5	62.6	71.6	57.2	64.4
16	62.6	68.9	72.5	69.8	65.3	62.6	73.4	59.9	66.7
17	61.7	69.8	71.6	68	62.6	62.6	72.5	59.9	67.2
18	61.7	68.9	72.5	69.8	65.3	63.5	74.8	59.9	66.9
19	62.6	70.7	73.4	68	64.4	61.7	73.4	59	66.2
20	60.8	67.1	72.5	70.7	65.4	60.8	73.4	59	66.2
21	60.8	68	69.8	68	61.7	60.8	71.6	58.1	65.3
22	60.44	68.68	68.9	70.7	64.4	62.6	71.6	58.64	64.76
Mean	60.8	68	72.32	69.8	64.4	65.84	73.4	58.46	65.84
June 23	61.7	65.30	69.8	71.6	66.2	65.3	72.5	60.8	66.74
24	62.6	67.1	70.88	68	63.5	62.6	71.6	59.9	65.66
25	61.7	68	70.7	65.3	63.5	60.08	71.6	57.96	64.76
26	59	68.9	71.6	66.2	62.6	61.7	73.4	56.48	64.4
27	59.9	66.2	71.6	63.9	65.3	64.4	73.4	56.64	66.02
28	62.6	67.1	69.8	64.4	61.7	59.9	70.7	57.74	64.22
29	59	68	68.9	66.2	61.7	59.9	69.8	57.76	63.86
30	59.36	66.2	71.24	68.9	64.94	61.88	71.6	56.3	65.3
July 1	60.8	68	72.5	68	64.4	63.5	73.04	59.36	66.2
2	62.6	68.8	72.5	69.8	67.1	64.4	73.4	61.16	67.28
3	63.14	66.2	73.4	70.16	66.2	64.4	74.84	59.36	67.1
4	63.5	70.7	73.4	66.2	64.4	62.6	74.3	59	66.74
5	60.8	68	72.5	68.9	66.2	65.48	73.4	60.44	66.92
6	64.4	68	73.4	67.1	63.5	62.6	73.76	59	66.38
7	62.24	70.7	72.5	66.2	64.4	63.5	73.4	57.94	66.56
Mean	62.52	67.82	71.6	67.64	64.22	62.78	72.68	59	65.84
July 8	60.8	66.2	70.7	68	64.4	63.68	71.6	59.36	65.48
9	62.24	65.88	71.6	66.2	63.5	62.6	72.32	58.28	65.3
10	62.24	64.4	72.5	69.8	64.4	63.5	73.4	58.64	66.02
11	62.6	66.2	70.7	68	63.5	62.6	70.24	59.72	65.48
12	61.7	66.2	69.8	67.1	62.6	61.7	70.7	58.82	64.76
13	60.8	63.5	68	66.2	63.5	62.6	69.8	58.28	64.74
14	61.52	64.4	68.9	66.56	64.4	63.5	71.24	58.28	64.76
15	62.6	66.2	69.8	68	64.4	63.5	71.6	59.72	65.66
16	62.6	68.3	66.2	64.4	63.5	62.6	68	60.08	64.04
17	61.52	63.5	64.4	63.5	62.6	61.7	61.7	58.46	62.76
18	59.9	62.6	64.4	62.6	62.24	61.52	66.2	58.28	62.24
19	59.9	64.4	68	68	64.4	63.5	68.9	60.26	64.56
20	62.6	66.2	69.8	68	66.2	64.4	71.6	60.8	66.2
21	61.7	62.6	68.9	68	64.4	63.5	69.8	59.72	64.76
22	60.8	66.2	70.7	66.2	64.4	62.6	71.6	58.64	65.12
Mean	61.52	64.94	68.9	66.74	63.86	62.78	70.84	59.18	64.76

RESUME.

Maxima	64.4	70.7	74.8	74.3	68	65.48	75.2	61.7	68.9
Minima	53.6	62.6	64.4	62.6	61.7	59.9	66.2	52.7	62.24
Means	60.98	67.1	71.06	68.86	64.58	62.78	72.32	58.88	65.66

Temperature extremes for the sixty days of observation:

Maxima 75.2

Minima 52.7

Temperature mean for the sixty days of observation 65.66

Relative humidity—Hygrometric observations.

[Tables accompanying Part II, Article F.]

First fifteen days.				Second fifteen days.			
Date.	9 a. m.	4 p. m.	10 p. m.	Date.	9 a. m.	4 p. m.	10 p. m.
May 24.....	70	62	70	June 8.....	58	62	62
25.....	68	68	70	9.....	58	60	64
26.....	69	66	68	10.....	56	62	66
27.....	66	70	64	11.....	60	56	62
28.....	60	66	64	12.....	56	65	66
29.....	60	64	67	13.....	58	64	70
30.....	62	66	64	14.....	65	70	70
31.....	64	64	68	15.....	66	70	70
June 1.....	68	66	62	16.....	60	66	68
2.....	56	64	64	17.....	62	68	70
3.....	60	63	.....	18.....	66	68	70
4.....	58	66	68	19.....	58	66	68
5.....	60	64	64	20.....	62	67	66
6.....	60	68	68	21.....	62	68	72
7.....	60	52	62	22.....	70	65	68
Mean percentage of humidity.....	.....	.....	66.2	Mean percentage of humidity.....	.....	.....	60.5

Third fifteen days.				Fourth fifteen days.			
Date.	9 a. m.	4 p. m.	10 p. m.	Date.	9 a. m.	4 p. m.	10 p. m.
June 23.....	66	66	66	July 8.....	65	67	68
24.....	62	66	66	9.....	66	68	68
25.....	60	69	70	10.....	68	69	69
26.....	60	68	70	11.....	62	67	68
27.....	52	67	68	12.....	66	68	70
28.....	66	70	68	13.....	66	66	68
29.....	66	68	68	14.....	65	70	70
30.....	64	66	70	15.....	66	69	70
July 1.....	64	67	69	16.....	68	68	70
2.....	68	67	68	17.....	66	68	70
3.....	66	66	70	18.....	64	62	69
4.....	60	66	70	19.....	60	64	65
5.....	68	68	70	20.....	56	57	60
6.....	62	67	68	21.....	54	58	58
7.....	61	67	68	22.....	56	58	60
Mean percentage of humidity.....	.....	.....	66.2	Mean percentage of humidity.....	.....	.....	60.5

Quantity of rainfall.

[In inches.]

First 15 days.		Second 15 days.		Third 15 days.		Fourth 15 days.	
May 24.....	0.157	June 8.....	0.118	June 23.....	0.118	July 8.....	0.55
25.....	.197	9.....	.118	24.....	.079	9.....	.157
26.....	1.18	10.....	.118	25.....	.089	10.....	.591
27.....	.784	11.....	.118	26.....	.118	11.....	.079
28.....	.984	12.....	.118	27.....	.398	12.....	.157
29.....	.118	13.....	.157	28.....	.398	13.....	.591
30.....	.118	14.....	.157	29.....	.591	14.....	.157
31.....	.894	15.....	.394	30.....	.394	15.....	.118
June 1.....	.089	16.....	.354	July 1.....	.394	16.....	.591
2.....	.089	17.....	.284	2.....	.394	17.....	.984
3.....	.384	18.....	.591	3.....	.394	18.....	3.15
4.....	.384	19.....	1.58	4.....	.394	19.....	1.18
5.....	.384	20.....	1.58	5.....	.394	20.....	1.18
6.....	.118	21.....	.157	6.....	.118	21.....	1.18
7.....	.118	22.....	.089	7.....	.678	22.....	.157
Total.....	4.33	Total.....	3.18	Total.....	10.927	Total.....	8.565

Quantity of rainfall in the 60 days of observation, 19.331 inches.

Number and length of storms.

Date.	Beginning.	End.	Lasted.	Intensity.
May 28.....	4 p. m.....	5 p. m.....	1 hour.....	Light.
30.....	2 p. m.....	3 p. m.....	do.....	Moderate.
31.....	4 p. m.....	5 1/2 p. m.....	1 1/2 hours.....	Light.
June 4.....	4 p. m.....	6 p. m.....	2 hours.....	Do.
5.....	4 p. m.....	5 p. m.....	1 hour.....	Moderate.
8.....	4 p. m.....	5 p. m.....	do.....	Do.
12.....	3 p. m.....	4 p. m.....	do.....	Do.
14.....	8 p. m.....	4 p. m.....	do.....	Strong.
16.....	8 p. m.....	5 p. m.....	2 hours.....	Moderate.
17.....	8 p. m.....	5 p. m.....	do.....	Strong.
18.....	4 p. m.....	6 1/2 p. m.....	2 1/2 hours.....	Very strong.
19.....	3 p. m.....	4 p. m.....	1 hour.....	Light.
20.....	8 p. m.....	4 p. m.....	do.....	Do.
22.....	4 p. m.....	8 1/2 p. m.....	2 1/2 hours.....	Do.
23.....	6 p. m.....	8 p. m.....	2 hours.....	Moderate.
24.....	11 p. m.....	1 a. m.....	do.....	Light.
25.....	12 m.....	1 p. m.....	1 hour.....	Moderate.
26.....	8 p. m.....	5 1/2 p. m.....	2 1/2 hours.....	Very strong.
28.....	12 m.....	3 p. m.....	8 hours.....	Strong.
29.....	12 m.....	3 p. m.....	do.....	Do.
July 3.....	8 p. m.....	5 p. m.....	2 hours.....	Moderate.
4.....	12 m.....	4 p. m.....	4 hours.....	Strong.
5.....	2 p. m.....	4 1/2 p. m.....	2 1/2 hours.....	Moderate.
6.....	1 1/2 p. m.....	4 p. m.....	do.....	Do.
7.....	2 p. m.....	3 p. m.....	1 hour.....	Do.
8.....	4 p. m.....	6 p. m.....	2 hours.....	Very strong.
11.....	8 p. m.....	4 p. m.....	1 hour.....	Moderate.
14.....	2 p. m.....	3 p. m.....	do.....	Light.
22.....	2 p. m.....	4 p. m.....	2 hours.....	Strong.

RÉSUMÉ.

Stormy days.....	29
Discharges in Baguio.....	21
Most frequent duration.....	1 hour.
Most frequent intensity.....	Moderate.

Relative cloudiness.

[0, sky entirely clear; 10, sky completely overcast.]

First fifteen days.				Second fifteen days.			
Date.	9 a. m.	4 p. m.	10 p. m.	Date.	9 a. m.	4 p. m.	10 p. m.
May 24.....	10	10	10	June 8.....	10	10	4
25.....	6	10	10	9.....	0	9	0
26.....	10	10	10	10.....	3	8	8
27.....	9	10	8	11.....	3	6	0
28.....	3	10	10	12.....	3	10	0
29.....	0	7	10	13.....	2	8	5
30.....	0	4	0	14.....	5	10	10
31.....	0	8	0	15.....	10	10	10
June 1.....	0	5	0	16.....	6	10	5
2.....	10	10	10	17.....	5	10	10
3.....	3	10	0	18.....	2	10	10
4.....	2	10	2	19.....	0	10	0
5.....	8	10	5	20.....	5	10	5
6.....	3	10	3	21.....	5	10	10
7.....	3	10	0	22.....	10	10	10

Relative cloudiness—Continued.

Third fifteen days.				Fourth fifteen days.			
Date.	9 a. m.	4 p. m.	10 p. m.	Date.	9 a. m.	4 p. m.	10 p. m.
June 23	10	10	10	July 8	6	10	5
24	6	3	0	9	10	10	10
25	0	10	5	10	5	10	5
26	0	10	0	11	10	10	10
27	0	10	0	12	9	10	10
28	5	5	3	13	8	10	10
29	6	9	0	14	0	10	8
30	0	8	0	15	10	10	10
July 1	3	10	5	16	10	10	10
2	4	10	4	17	10	10	10
3	10	10	4	18	10	10	10
4	2	10	2	19	8	10	5
5	8	10	5	20	5	8	0
6	5	10	5	21	5	10	7
7	8	10	10	22	2	10	0

RESUME.

[Table accompanying Part II, Article G.]

State of the sky.	Morning.	Afternoon.	Night.	Total.
Entirely clear	11		18	29
Obscured less than half	14	2	6	22
Obscured half	10	2	10	22
Obscured more than half	11	9	4	24
Totally obscured	14	47	22	83
Total	60	60	60	180

Frequency of fogs.

Date.	Beginning.	End.	Duration.	State.
May 24	9 a. m.	10 p. m.	13 hours	
25	4 p. m.	9 p. m.	5 hours	
26	1 a. m.	12 p. m.	24 hours	Hazy.
27	12 p. m.	8 a. m.	15 hours	Intense.
28	4 p. m.	11 p. m.	2 hours	
29	4 p. m.	6 p. m.	3 hours	
30	7 p. m.	10 p. m.	2 hours	Intense.
31	6 p. m.	8 p. m.	8 hours	Misty.
June 2	6 p. m.	10 p. m.	4 hours	
3	3 p. m.	6 p. m.	3 hours	Intense.
10	4 p. m.	5 p. m.	1 hour	Misty.
12	8 p. m.	4 p. m.	do	
13	2½ p. m.	3½ p. m.	do	Intense.
15	4½ p. m.	5½ p. m.	5 hours	
16	6 p. m.	10 p. m.	1½ hours	
17	2 p. m.	4 p. m.	2 hours	
18	3 p. m.	4 p. m.	1 hour	Intense.
20	3 p. m.	4½ p. m.	1½ hours	
24	2 p. m.	3½ p. m.	do	
25	2½ p. m.	5½ p. m.	11 hours	Misty.
26	2 p. m.	7 a. m.	2½ hours	
28	8 p. m.	4½ p. m.	12 hours	
July 1	3 p. m.	8 a. m.	do	
5	9 p. m.	8 a. m.	do	
6	4 p. m.	4½ p. m.	½ hour	
7	3 p. m.	3½ p. m.	do	Intense.
8	3 p. m.	8 a. m.	12 hours	Misty.
9	8 p. m.	8 a. m.	do	M.
10	3 p. m.	4 p. m.	1 hour	
14	6 a. m.	5 a. m.	do	Intense.
16	3½ p. m.	5 p. m.	1½ hours	
22	12 a. m.	8 p. m.	8 hours	Intense.
	3 p. m.	4 p. m.	1 hour	

Frequency of fogs—Continued.

[Tables accompanying Part II, Article E.]

First fifteen days.				Second fifteen days.			
Date.	9 a. m.	4 p. m.	10 p. m.	Date.	9 a. m.	4 p. m.	10 p. m.
May 24	SE	SE	SW	June 8	E	E	E.
25		SW	SW	9	E	SW	
26			SW	10	E	SW	SW.
27	SW	SW		11	E	SE	
28	SW	SW		12	SE	SW	
29	SE	SW		13	SE	S	SE.
30	SE	SW		14	SE	S	SE.
31	SW			15	S	NW	
June 1		SW		16	S	SW	
2		SW		17	S	NW	
3	SE	SW		18		SE	
4	E			19	E	NW	
5	E	SW		20	SE	SW	SE.
6	E			21	SE	SE	SE.
7	E	E	E	22	SE	S	SE.

Third fifteen days.				Fourth fifteen days.			
Date.	9 a. m.	4 p. m.	10 p. m.	Date.	9 a. m.	4 p. m.	10 p. m.
June 23	S	SW		July 8	W	SW	
24	SE	S		9	W	SW	SW.
25	S	SW		10	WSW	SW	SW.
26	S	NW		11	SW		
27	SE	SW		12	S	SW	S.
28	SW			13	W	W	SW.
29	SW			14	SW	S	
30	SW	SW	SW	15	NW	W	
July 1	SW			16	NW	W	SW.
2	S	W		17	NW	Variable	Variable
3	S	SW		18	W	SW	SW.
4	SE			19	SW	S	
5				20	NW		
6		SW		21		W	
7	SE	W		22		SW	

Direction most frequent each period of fifteen days: Southwest.

Frequency of winds.

Winds.	9 a. m.	4 p. m.	10 p. m.	Total.
Calm	10	10	41	61
North				0
Northeast				0
East	8	2	2	12
Southeast	15	4	5	24
South	9	7	1	17
Southwest	9	26	10	45
West	5	6		11
Northwest	4	4		8
Variable		1	1	2
Total	60	60	60	180

Prevailing winds.

[Tables accompanying Part II, Article E.]

FIRST FIFTEEN DAYS.

Date.	9 a. m.	4 p. m.	10 p. m.
May 24.....	Fresh.....	Fresh.....	Moderate.
25.....	Calm.....	Strong.....	Strong.
26.....	do.....	Calm.....	Moderate.
27.....	do.....	Strong.....	Calm.
28.....	Moderate.....	Moderate.....	Do.
29.....	do.....	do.....	Do.
30.....	do.....	do.....	Do.
31.....	do.....	Calm.....	Do.
June 1.....	Calm.....	Moderate.....	Do.
2.....	Fresh.....	do.....	Do.
3.....	Violent.....	do.....	Do.
4.....	Strong.....	Calm.....	Do.
5.....	do.....	Strong.....	Do.
6.....	Moderate.....	Calm.....	Do.
7.....	Strong.....	Moderate.....	Fresh.

Velocity predominant: Moderate.

SECOND FIFTEEN DAYS.

June 8.....	Calm.....	Strong.....	Violent.
9.....	Moderate.....	do.....	Calm.
10.....	Strong.....	Moderate.....	Moderate.
11.....	do.....	do.....	Calm.
12.....	do.....	Fresh.....	Do.
13.....	Moderate.....	Moderate.....	Strong.
14.....	Strong.....	Strong.....	Do.
15.....	Moderate.....	Fresh.....	Calm.
16.....	do.....	Moderate.....	Do.
17.....	do.....	Fresh.....	Do.
18.....	Calm.....	Fresh.....	Calm.
19.....	Moderate.....	Moderate.....	Do.
20.....	Strong.....	do.....	Very strong.
21.....	Very strong.....	Strong.....	Strong.
22.....	do.....	do.....	Do.

Predominant velocity: Strong.

THIRD FIFTEEN DAYS.

June 23.....	Moderate.....	Moderate.....	Calm.
24.....	do.....	do.....	Do.
25.....	do.....	do.....	Do.
26.....	do.....	do.....	Do.
27.....	Fresh.....	do.....	Do.
28.....	do.....	Calm.....	Do.
29.....	Moderate.....	do.....	Do.
30.....	do.....	Moderate.....	Moderate.
July 1.....	do.....	do.....	Calm.
2.....	Fresh.....	Fresh.....	Do.
3.....	do.....	do.....	Do.
4.....	Moderate.....	Moderate.....	Do.
5.....	Calm.....	Calm.....	Do.
6.....	do.....	do.....	Do.
7.....	Fresh.....	Fresh.....	Do.

Predominant velocity: Moderate.

FOURTH FIFTEEN DAYS.

July 8.....	Moderate.....	Fresh.....	Calm.
9.....	do.....	do.....	Moderate.
10.....	do.....	do.....	Do.
11.....	do.....	Calm.....	Calm.
12.....	do.....	Fresh.....	Moderate.
13.....	do.....	do.....	Do.
14.....	Fresh.....	Moderate.....	Calm.
15.....	do.....	do.....	Do.
16.....	Strong.....	Very strong.....	Hurricane.
17.....	Hurricane.....	Hurricane.....	Do.
18.....	Violent.....	Very strong.....	Strong.
19.....	Moderate.....	Moderate.....	Calm.
20.....	do.....	Calm.....	Do.
21.....	Calm.....	Moderate.....	Do.
22.....	do.....	do.....	Do.

Predominant velocity: Moderate.

Strength of the winds.

Velocities.	9 a. m.	4 p. m.	10 p. m.	Total.
Calm.....	10	10	41	61
Moderate.....	27	27	8	62
Fresh.....	9	12	1	22
Strong.....	9	8	6	23
Very strong.....	2	2	1	5
Violent.....	1		2	3
Hurricane.....	2	1	1	4
Total.....	60	60	60	180

EXHIBIT I.

Report on the condition of the mint, by Major Lovering, Thirteenth Infantry, U. S. V.

HEADQUARTERS DIVISION OF THE PHILIPPINES,
OFFICE OF THE INSPECTOR-GENERAL,
Manila, P. I., October 15, 1900.

The SECRETARY TO THE MILITARY GOVERNOR
IN THE PHILIPPINES,
Manila, P. I.

(Through Inspector-General of the Division.)

SIR: In compliance with verbal instructions I have the honor to submit the following report on an inspection of the mint (Casa de Moneda), made October 10 to 13, 1900:

It is reported (not verified) that the mint was established in 1865, and that gold and silver were coined until 1870; that since 1870, silver only has been coined. It does not appear that copper coins have ever been made at the mint. Silver was coined until May, 1898. It is reported at this time the general condition of the mint was very good, and that all the departments were in good running order.

Building.—The mint is situated at 358 Calle Cabildo, corner of Calle Recoleta, with a frontage of 80 feet 3 inches on Calle Cabildo and extending back to Calle Magallanes. Attention is invited to attached plan of building.

The lower story, or mint proper, is of stone, with partition walls of same. The outside walls on the side joining private property are extended up to the top of the second story, thus affording some protection against fire.

The second story, built of wood, was formerly used for offices and as quarters for employees, but it is now used as a court-house for courts of first instance.

The lower story contains the following rooms: Office, countingroom, and strong room; janitor's quarters; furnace room; old furnace room; blacksmith shop; boiler and engine room; fillet room; laboratory, with assayer's cabinet; coining room; sheds, open and closed.

Office.—The office consists of two rooms and a strong room divided into two compartments. The office contains: Five scales, bullion, condition very good; 3 scales, small, condition very good; 1 cutting machine, hand, condition fair; 2 desks, office, worn; 1 bookcase, worn; 3 tables, worn; 6 chairs, worn; 2 stools, worn; 1 washstand, worn; 1 counter, worn.

Janitor's quarters.—The janitor's quarters consist of 4 rooms in poor state of repair. Sandalio Valez, a Porto Rican, is the janitor and care-

taker of the building. The keys of the mint are in the possession of the treasurer of the islands.

Furnace room.—This room contains 10 melting furnaces, with molds, tongs, and furnace implements; 1 annealing furnace, horno de recocho, with furnace implements; 1 blanching or pickling apparatus, which can be used for hot or cold pickling; 2 cleaners; 2 cast-iron baths. In this room the furnace and apparatus are all in very good condition and state of repair. There are no mechanical appliances for the pouring of the melted metal. The capacity of each smelting furnace is 1,000 ounces of silver.

Old furnace room.—There is an old furnace room with an unserviceable furnace. This room and furnace have not been used for a number of years.

Blacksmith shop.—The blacksmith shop is in "fair" to "good" condition. The shop contains the following: One forge, with power bellows; 3 lathes, power; 2 grindstones, power, one of them an excellent stone; 7 vises; 2 anvils; hammers, tongs, punches, chisels, and tools, poor to fair condition and of little value.

Boiler and engine room.—This room is 38 feet 4 inches by 43 feet 10 inches, and contains a high-duty Scotch marine boiler and an automatic cut-off high-pressure 100-horsepower engine with steam pump attached. The cylinders are 36 by 14 inches. The stroke is 15 inches. The engine and boiler are in good condition. The engine is marked "Federico H. Sawyer," no date. The cylinder head has been removed to facilitate cleaning and preserving. The boiler has been painted since it was last used. It is reported by Janitor Sandalio Valez that the machinery was cleaned and oiled about a year ago. At present it needs oiling and cleaning, as it is beginning to rust and deteriorate.

The boiler and engine are reported by Mr. McChesney, master mechanic at the depot quartermaster's shop, as "fine." Mr. McChesney examined the mint with me and gave me an expert opinion upon all of the machinery. There is an underground 4½-inch main shaft with gear attachment running into the fillet room. There is also a countershaft with friction attachment running into the blacksmith shop and into the fillet room for overhead power. This latter shaft is disconnected at present.

In the engine room there are 2 dynamos, good and serviceable. They have not been set up. It is reported by the janitor that they came from the captain of the port's building. There is also 1 die-stamp machine, not connected with shaft, old and unserviceable. In the engine room there are 2 stocks with dies, good; 1 chain tackle, 5-inch, extra parts, wrenches, and tools, belonging to the engine.

Fillet room.—This room contains the following: Four fillet machines, each with 2 sets of rolls, condition very good; 1 hand fillet machine, with 1 set of rolls; 3 machines, cutting, hand, for large coins, peso and half peso, condition very good; 4 machines, cutting, hand, for small coins, 20 cents and 10 cents, condition good; 1 machine, cutting, hand, for sheet metal, condition fair; 2 iron chests, condition very good; 2 bullion planes, hand, condition poor; 1 scales, testing, small, condition very good; 1 scales, bullion, large, condition very good; 1 scales, assay, small, condition very good.

The machinery is in good condition, and if cleaned and overhauled, would be in condition to make fillets and blanks. Size of room, 26 feet by 66 feet 8 inches.

Laboratory.—The laboratory is in very good condition, and is fitted with good appliances for assay work, either for a mint or a mining department. It contains the following: One assay furnace with 2 muffles and 1 melting chamber, in good or very good condition; 1 distilling apparatus, water, in position, condition good; 3 retorts, glass, in position, with extra retorts, etc., condition good; 2 small furnaces, portable, condition new; 2 molds for making cupels, condition good; 2 shaking machines, condition fair; 2 machines, rolling, small, hand, condition good; 2 scales, small, condition good; 1 scale, assay, in glass, very fine, condition good; 1 platinum boiler, 3 kilograms 542 grains, value \$5,000 Mexican, condition good; 1 acid still, condition good; 1 electric-plating machine, with battery, extra cells; Reinstadt, amperemeter and bath; 1 stone bath, condition good; 1 acid jar, large, condition good; 1 assayer's cabinet with fair stock of acids, reagents, chemicals, muffles, cupels, etc.; 1 iron chest or safe.

Coining room.—The coining room contains: Two coining presses, screw, hand, made by Aubert, Paris (\$1 or 50 cents), condition very good; 1 coining press, screw, hand (\$1 or 50 cents), condition very good; 2 coining presses, screw, hand, small coin, condition very good, made by Aubert, Paris; 1 coining press, screw, hand, small coin, condition good; extra screws and spare parts for repairing.

The machines bear no dates. Manufacturer's plates on 4 machines read, "Aubert, 11 Rue Grenier, St. Lazare, Paris." One of the 4 machines is also marked, "Reinaldo Da Isabel 2 siendo Ministro de Ultramar, El Exmo. D. José de la Concha."

Connected with the coining room is an engraver's room. There are no engraver's tools or appliances.

Copper-coining machine.—In the second courtyard there is a copper-coining machine. The coining press bears the following inscription: "Siendo Superintendente Gral. de las Reale Casas de moneda, el Exmo. Sr. D. Luis Lopez Ballestro. Año de 1832."

It is reported that this machine has been in Manila about six years. It has never been set up. It has been in the courtyard exposed to the weather for about one year. It appears to be a complete set of machinery for coining copper. Some of it is boxed, some is not boxed. It is a large machine, or a number of machines, weighing many tons. Its condition is apparently good. Some of the boxes have been broken open. It is not known whether it is complete or not. There is no room at the mint for its proper storage and protection. With the copper-coining machine there is one 6-inch chain tackle. Its condition is poor to fair.

Sheds.—On one side of the courtyard are sheds, opened and closed. One of the sheds is fitted up as a stable. Some of the sheds are empty, some are filled with rubbish, one contains coal, and a number contain property said to be under the jurisdiction of the courts.

Protection.—The mint is protected by a guard consisting of one non-commissioned officer and three privates. At the entrance of mint there are two small rooms for use of guard. It would appear that the mint is fairly well equipped for the coining of a limited amount of silver by hand. The fillet machines are the only power machines used for the purpose essential to the coining of money.

The defects are:

1. No edge-rolling machine; this is not essential.
2. No mechanical furnace apparatus for the handling of the melted metal, and for running it into molds.

3. Lack of power machines in all the departments except the fillet machine.

The mint has not coined gold for many years. The mint is not equipped for coining gold in considerable quantity.

The defects are:

1. Lack of fine rolls, or drag bench.

2. Lack of automatic balance for weighing each blank or coined piece.

It is not known whether the machinery, furnaces, etc., are of a grade suitable for the working of gold. In modern mints there are separate rooms and machines for the preparing and coining of gold. One reason for this is to avoid loss by theft and to facilitate the recovery of gold from crucibles and "sweep."

It does not appear that copper has ever been coined at this mint. There is no room in the mint to set up the copper-coining machinery.

Capacity.—The capacity of the mint per day of six hours is 12,000 large coins (\$1 and 50 cents), and 11,000 small coins (20 and 10 cents).

General condition.—All of the departments of the mint appear to be in good condition. The boiler, engine, four fillet machines, five coining machines, and most of the scales are very good and in very good condition. The furnaces are good, or perhaps very good.

In order to open the mint and coin money, all of the machinery would require overhauling and the repairing usually necessary to machinery that has stood idle for over two years.

Mr. McChesney informs me that it would require one month to put the machinery of the mint in running order.

Remarks.—The boiler, engine, machinery, and instruments should all be cleaned and oiled again.

Very respectfully,

L. A. LOVERING,
Major, Thirtieth Infantry, U. S. Volunteers,
Acting Inspector-General.

OFFICE OF THE INSPECTOR-GENERAL,
HEADQUARTERS DIVISION OF THE PHILIPPINES,
Manila, P. I., November 21, 1900.

THE SECRETARY TO THE MILITARY GOVERNOR
IN THE PHILIPPINES,
Manila, P. I.

(Through Inspector-General of the Division.)

SIR: In compliance with verbal instructions from your office, I have the honor to submit the following supplementary report upon the Mint with reference to approximate cost of repairing same.

The machinery was inspected by a machinist, and the following estimate was made:

	Gold.
For taking apart, cleaning, oiling, and putting together the engine and machinery, with incidental repairs.....	\$500
Eleven new smokestacks for furnace.....	275
Total	775

Very respectfully,

L. A. LOVERING,
Major, Thirtieth Infantry, U. S. Volunteers,
Acting Inspector-General.

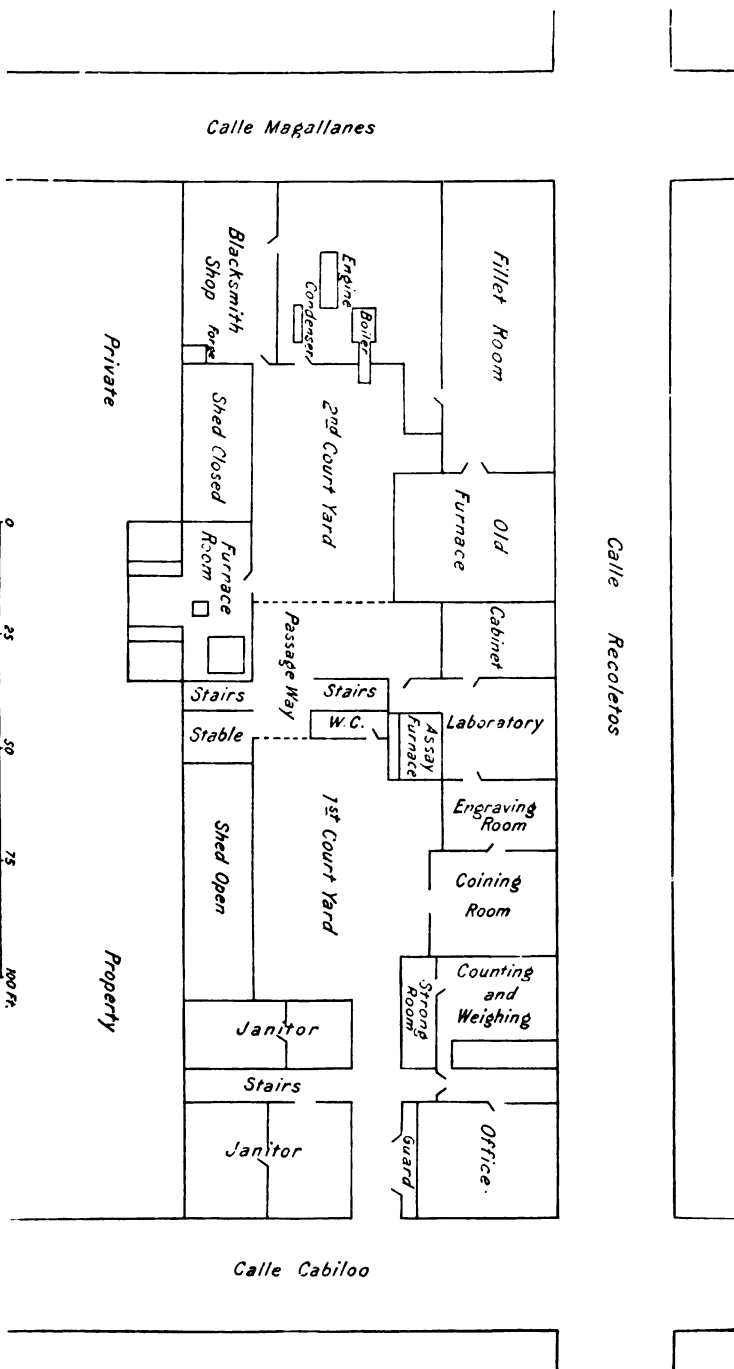


EXHIBIT J.

Historical résumé of the administration of justice in the Philippine Islands, by Señor Cayetano S. Arellano, chief justice of the supreme court.

In order to give an idea of the manner in which justice was administered in these islands from the earliest times of the Spanish domination up to the event of the American sovereignty, it is necessary to give a historical account of the legislation which has successively regulated, first, the judicial organization; second, criminal procedure, and third, civil procedure.

1.—LAWS OF JUDICIAL ORGANIZATION.

It is necessary to divide this history into various periods for the sake of greater clearness and a better understanding of the systems successively adopted.

First, from 1582 to 1596.

Second, from 1596 to 1815.

Third, from 1815 to 1861.

Fourth, from 1861 to 1869.

Fifth, from 1869 to 1886.

Sixth, from 1886 to 1891.

First and second periods.—On the 5th of May, 1582, the audiencia of Manila was for the first time established and was composed of a president (who was also the governor of the islands), three associate justices (subsequently called magistrates), and an attorney-general. This audiencia was done away with by the royal cédula of the 9th of August, 1589, but was reestablished the 25th of May, 1596. Law II, title 5, book 2, of the abridgment of the laws of the Indies organized the audiencia-chancery of Manila, composed of a president (governor of the islands), four associate justices, who were also criminal judges, and an attorney-general, with the office of protector of the Indians, and the other necessary ministers and officials. The regulations of 1776 and 1778 modified the organization of the audiencia of Manila as also the other audiencias of the Indies in Spanish-America.

Third period.—From the time of the promulgation of the royal cédula of the 7th of June, 1815, the audiencia consisted of a president (the governor of the islands), a regent (immediate head of the court), 5 associate justices (magistrates), 2 attorneys-general, and an assistant to the head chancellor (the latter did not administer justice, but was the seal keeper of the court), there being also 5 subalterns, 2 assistant attorneys-general, and 2 reporters. The gubernative branch of the court received the same real acuerdo and in it was discussed everything connected with its economy and interior régime, and rules were established for the government of inferior judges; another important duty was that of giving advice when called upon to the presidents (the governors) in matters of special importance, to insure proper action in their administrative decisions. From this real acuerdo have emanated the autos acordados or reports, which have been used as precedents in the courts of justice, and which have been collected into four quarto volumes, with an appendix, edited by the audiencia of Manila itself; this was formerly the indispensable book of every judge and lawyer,

as in this collection were contained all of the rules of procedure and many rulings of administrative character which affected the administration of justice.

During these three periods the administration of justice in first instance in the provinces was in the hands of political chiefs of the same, who were in some instances civilians, called *alcaldes mayores*, and in other instances, military men denominated politico-military governors; but all were laymen in the science of law and required advice in rendering their decisions, which advice they were almost always obliged to seek in this capital, this delay in cases causing very injurious results. On this account, first, the royal order of the 11th of December, 1830, established the classification of the provinces and decided which were to be politico-military governments and which governments of *alcaldías mayores*, and subsequently the decree of the 23d of September, 1844, required certain qualifications for the office of *alcalde mayor*, dividing the *alcaldes* into three classes.

These *alcaldes mayores* continued to be the civil heads of their respective provinces. In an organic decree of the 30th of June, 1860, other new offices of *alcalde* were created, but without authority over matters other than judicial.

During this period, in which a more perfect judicial organization is noted, the royal *cédula* of the 30th of January, 1855, was received, which in many regards may be considered as the true code for the administration of justice, which has served as a school for many lawyers still living. This law not only contained the rules of procedure, but also provisions with regard to judicial organization, which have been preserved in their most essential parts down to our own day notwithstanding modern reforms. Under this organization the sole *audiencia* of Manila consisted of a president (who is still the governor of the islands), a regent (the real head of the court), seven associate justices, two of whom were the judge-advocates of the army and navy, an attorney-general for criminal matters, and an attorney-general for civil matters. This royal *cédula*, with slight modifications, and the ordinances for the government of the *audiencia*, approved by royal decree of 1868, have been the organic laws which have been in force up to the time of the new organic decree of 1870, which initiates the fifth period.

Hence it is that the fourth period, from 1861 to 1870, is notable only in so far as it throws into relief two very notable events which affect the jurisdiction of this superior court; first, the complete separation of the governor of the islands—that is to say, the suppression of the office of president—and again, the abolition of the royal *acuerdo*, which, operated under the presidency of the governor of the islands, and enjoyed reglamentary powers from which were derived the *autos acordados*, of which mention has been made. All this was established by the royal decree of July 3, 1861, issued in consequence of another of the same date which created a board of administration in these islands, and which from that time up to the last days of the Spanish domination continued as a consultative body, presided over, as was formerly the real *acuerdo*, by the governor of the islands. After the abolition of the real *acuerdo*, the gubernative branch was established, the court in banc, and the presidency, in charge of the so-called regent, a name which was afterwards done away with and substituted by that of president.

Fifth period.—From the 24th of October, 1870, dates the organic decree of courts, with which the present generation is most familiar on account of its having been in operation in recent years. Under this decree the *audiencia* of Manila was composed of a president, two presidents of the branches, eight magistrates, one attorney-general, one assistant attorney-general, and four prosecuting attorneys; and for the courts of first instance, still filled by judge-advocates, who continued to retain their respective rank, divided into three classes, the office of district attorney was established.

The branches of the supreme court of justice, from the time there were two, exercised jurisdiction over both criminal and civil matters. When the judge-advocate of the army and navy formed part of the court as magistrates, they were members of the first branch, the other being known as the second branch; but with the reform of 1870 those judge-advocates ceased to be magistrates of the courts; by the royal decree of the 23d of May, 1879, the branches of the court of justice ceased to be known as the first and second branches, the names civil and criminal branch being adopted. By royal decree of the 4th of November of the same year the judge-advocate of the army and navy were again made *ex officio* members of the civil branch whenever it was called upon to decide the questions of conflict of jurisdiction between the civil and military courts, or between the naval and military courts, and in this manner the civil branch operated as a delegate of the supreme court, for this was the only court in Spain in which questions concerning jurisdictions are settled. This period is worthy of special attention inasmuch as the Spanish revolution of September, 1868, by which the dynasty of the Bourbons was overthrown by the impulse of the democratic ideas which were the spirit of the movement, produced two decrees concerning the judicial organization in the islands, to describe which, even briefly, it is necessary to be a little more explicit concerning matters already touched upon. As no mention has been made of anything but the *audiencia* of Manila and the courts of first instance of the provinces, one might believe that judicial authority was exercised solely by those organisms of the administration of justice, but this is not the case. In addition to these courts, known as ordinary, inasmuch as the jurisdiction exercised by them was called ordinary, there were also other special courts which exercised the ordinary jurisdiction, it is true, but as a matter of exception and privilege in favor of a certain class of persons, or by reason of the nature of certain matters which the legislator deemed convenient to withhold from the ordinary jurisdiction and to submit to special jurisdiction on account of their being worthy in his judgment of special consideration and of a different method of judgment than that applied to ordinary affairs.

Thus it was there existed: (a) Ecclesiastical courts, (b) military courts, (c) naval courts, (d) a commercial court, (e) a treasury court, (f) a contentious court.

(a) *Ecclesiastical courts.*—The jurisdiction of these courts was exercised not only in case of matters purely ecclesiastical and canonical, but also in favor of certain persons, so that every complaint, civil or criminal, brought against an ecclesiastic belonged to the exclusive jurisdiction of this court. It was not until 1835 that by virtue of the royal order of the 20th October of the same year, ecclesiastics who had committed atrocious crimes were brought under the jurisdiction

of the civil courts. This ecclesiastical jurisdiction was exercised by the court of vicar-general in the see of the archbishop, that is to say, the judge of first instance was a so-called provisor and his court was regarded as being that of the bishop. Appeals were taken from the bishop to the archbishop of Manila, and from the latter to the nearest bishop, and as such the bishop of Nueva Caceres was so considered.

(b) *Military courts*.—These courts also exercised special jurisdiction, not only by reason of the nature of certain matters of an essentially military nature, but also in consideration to the persons who enjoyed military privilege and who could not be sued either civilly or criminally before the civil courts, but only before their own. In these courts the principal judge was the judge-advocate, acting in conjunction with the captain-general of the army; the audiencia of Manila was the appellate court from decisions in civil matters before this military court, and for that reason the judge-advocate, as stated, was a member of one of the branches of the audiencia.

(c) *Naval courts*.—The same thing precisely can be said of the special jurisdiction established in favor of sailors and all other persons who enjoyed the marine privilege and applicable to matters of special class.

(d) *Commercial court*.—This was an excellent court, which at all times has merited general favor. It was composed of a number of merchants of credit and respectability, known as consuls, and advised by a lawyer who was also selected from among those of best reputation and greatest learning in commercial matters. It was unique and operated only in Manila. As its name indicates, it took cognizance of all mercantile affairs; it was, then, a special court, and its specialty consisted in dealing solely with matters of a commercial nature, which, in the first place, require brevity in their procedure and, again, rather than a strict conformity with the letter of the law, require decisions in accordance with the provisions of equity, inasmuch as the principal characteristics of these matters, even by presumption of law, are speed and execution and good faith.

(e) *Treasury court*.—This was also unique and operated solely in the city of Manila. Its specialty was solely due to the nature of fiscal matters or, as indicated by its name, affairs concerning the public treasury, which also require special formalities, as they generally turned upon matters of accounts and were decided by legal provisions within the peculiar knowledge of the treasury officials. This court not only exercised litigious jurisdiction, but also, by analogy to the ordinary courts, took cognizance of certain matters of voluntary jurisdiction, as when they dealt with matters concerning administrative contracts and sales at public auctions.

But appeals in commercial and treasury matters were taken to the audiencia of Manila, so that the specialty of this court was limited to first instance.

(f) *Contentious court*.—This court arose from the establishment of a council of administration in these islands under the provisions of a royal decree of July 4, 1861, which surrounded the governor-general of these islands, who was president of the court, with prominent men who advised him by their votes on consultation. This contentious court consisted of three officials of judiciary, the president and two magistrates appointed by turn among those constituting the personnel of the audiencia, with the exception of the presidents of the branches

and two officials of the administration, who were known as the administrative magistrates; subsequently, by royal decree of the 3d of June, 1866, the court was reduced to a president and three magistrates. This court took cognizance of suits brought by private persons against the state, whenever they were litigated. Complaints of private individuals against the administration of the state, if not subject to litigation, could, after presentation of appeals to the governor-general of the islands, be taken upon a recourse of complaint to the colonial office in Spain if no relief was obtained under the decision of the governor-general.

Now that an understanding is had of the different special courts which operated in these islands as well as in Spain, and which existed by reason of the special privileges of certain classes of persons, or by reason of the special nature of certain affairs, it is now proper to speak of the two decrees mentioned above. One of them was the reflection in these islands of a law published in Spain for the abolition of those special privileges and their submission to the ordinary jurisdiction, which was called the "decree of the unity of privileges." The decree was dated February 1, 1869. By this legal measure it was declared that the ordinary jurisdiction alone was competent to take cognizance of civil and criminal matters and the offenses committed by ecclesiastics; of civil and criminal matters concerning retired members of the army and navy of all classes, who formerly enjoyed this exemption, and also their wives, children, and servants, even although they might be in active service; of the civil and criminal affairs of foreigners, both domiciled and transient; treasury matters and the crimes of smuggling, fraud, and similar offenses; and also mercantile affairs. Hence the treasury court and the court of commerce were done away with, and as regards the ecclesiastical court and the naval and military courts, their authority disappeared with regard to the personal privileges of the classes over which their jurisdictions extended, respectively, excepting certain canonical matters, which were retained by the first, and crimes of a certain nature by the second. Hence it was that in civil matters no jurisdiction remained in force beyond that of the civil courts, for the slight intervention which the law permitted to the military and naval courts in the commencement of probate proceedings and intestate proceedings in the estates of soldiers and sailors dying in battle or at sea was limited merely to preventive proceedings for the preservation of the property of the deceased; but as soon as the probate or intestate proceedings were commenced these could only be conducted and finished before the civil courts. This was the law which remained in force up to the end of the Spanish domination.

With regard to the jurisdiction of the ecclesiastical courts, by a subsequent decree of the general government of these islands the provisions of the above-cited decree with regard to civil and criminal cases against the ecclesiastics was declared to be in suspense until the supreme court of justice of Spain should decide upon the inquiry which had been presented to it concerning the desirability of applying the law here in its full extent. This ruling was not given, and hence the Spanish domination terminated with matters in this condition; and hence it is that with regard to criminal cases against ecclesiastics only those for atrocious crimes belong to the jurisdiction of the civil courts, all others being cognizable by the ecclesiastical courts alone.

Another decree of this period concerning judicial organization is

that which refers to the contentious court, which, as has been said, formed a part of the council of administration. The date of the decree is the 7th of February, 1869, and it is provided that the contentious administrative jurisdiction which was exercised by the councils of administration of the provinces of the colonies should in the future vest in the territorial audiencias of those provinces; that for the exercise of this jurisdiction there should be organized in each audiencia, as is done here, a department composed of the president of the same and the two presidents of the branches, the representative of the State being the attorney-general.

The theory upon which the former organization of this contentious administrative tribunal rested was the administration of the State in respect of its litigations with subjects. The judge-advocate was both judge and litigant at the same time. However, the decree of the 7th of February, 1869, inspired by the principles proclaimed by the revolution, was that these questions should be decided in the same manner as any other issue between private individuals. These suits, as has been seen, were brought in first instance before the audiencia of the territory; consequently appeals in second instance lay before the supreme court of justice of Spain. But by the other theory the first instance pertained to the contentious tribunal of the council of administration, and second instance of the council of state of Spain, to which appeals might be taken against decisions of the former court. But this reform, well received both in Spain and in the colonies, was of short duration, for one of the first acts of the Government of the monarchical restoration was the reestablishment of the contentious court in the same form in which it had existed prior to the reform of the royal decree of the 19th of March, 1875.

A few other legal measures were adopted during this period in relation to judicial organization, such as that which augmented the personnel of the audiencia of Manila in 1885, upon the repeated requests of that court, inasmuch as its labors had enormously increased, especially in criminal matters; but we shall see shortly afterwards that this personnel which was sent to assist the courts of justice in their arduous labors remained but a short time in Manila, preparing for the organization of another audiencia in Cebú, of which we will speak when treating of the subsequent period. The other measures are not worthy of special mention, except the following:

By royal decree of the 29th of May, 1885, justice courts were established in all the towns of the Philippine Archipelago with the exception of the districts of the city of Manila, in which there was established one justice court in each judicial district of the same, making four in all, as there are four judicial districts in which exist courts of first instance, known as the courts of Quiapo, Binondo, Intramuros, and Tondo.

At the termination of this period the judicial organization was constituted in accordance with the following hierarchy: (a) A territorial audiencia in Manila; (b) judges of the first instance in the provinces; (c) justices of the peace in the towns.

The organization of the territorial audiencia of Manila was a president of the tribunal; the civil branch composed of a president and four magistrates; the criminal branch composed of one president and four magistrates; supplementary magistrates annually appointed by the Spanish Government upon motion of the audiencia, of whom, accord-

ing to the legal provisions of this period, there might not be less than two or more than one-half of the number of regular magistrates. The functions of the court are various; those of each branch rigorously judicial—that is, they examine and decide judicial matters, criminal matters by the criminal branch, and civil matters by the civil branch, both generally in second instance as appellate courts. The civil branch, moreover, acts as a court for the decision of questions of jurisdiction between the ordinary courts and the naval and military courts, and between these latter special courts, but not in questions of jurisdiction between the ordinary courts and the administration of the State, because questions of this kind were decided by the governor-general with the assistance of the council of administration. In addition to the branches, there is a gubernative department, composed of the president of the court and two presidents of the branches and the attorney-general. Their functions are gubernative over the personnel of the judiciary and the interior administration of the department of justice.

The court in banc, composed of the entire bench, decide upon matters of a truly administrative nature in the department of justice—that is to say, with reference to the external organization of the judicial power—assuming all of the representation of this power in the islands, as the president of this court assumes the personal representation of this institution and exercises the authority proper to the superior head of the same—that is, as a chief of the department of justice in this territory. The court in banc acted in certain cases as a court of justice in criminal matters—that is to say, as the courts of first instance with appeal to the supreme court of Spain, to which it was subordinate in everything. As part of the administration of justice, the department of public prosecution acted in representation of the law, its office being filled in the *audiencia* of Manila, as has been seen, by the attorney-general, the assistant attorney-general, and various prosecuting attorneys.

(b) The judges in the provinces are divided into three grades in the judicial hierarchy. Some are called “*alcaldes mayores*” in certain provinces, in which they exercise both executive and judicial authority, being therefore governors as well as judges; others simply judges of first instance in the provinces in which were established politico-military governors, having no other than purely judicial authority. With the judges of first instance in the provinces there were district attorneys, members of the department of public prosecution, and also divided into three grades. The jurisdiction of the judges of first instance in the provinces embraced all civil affairs in suits of greater or lesser import, and all acts of voluntary jurisdiction as defined by law, and criminal cases over felonies which were cognizable by the ordinary jurisdiction, with the appeals to the *audiencia* of Manila in both criminal and civil matters.

(c) The justices of the peace in the towns were competent to take cognizance in civil matters of oral actions, so-called by the law, and of certain acts of voluntary jurisdiction expressly determined also by special laws, and in criminal matters of prosecutions for misdemeanors, also defined by law. In all these matters appeals lay before the courts of first instance. Prior to the establishment of the courts of justices of the peace it might be asked who administered justice in the towns? The local chiefs, known at all times as “*gobernadorcillos*,” and in the

brief period during which the Spanish constitution was in force in the Philippines as "alcaldes;" finally, under the Maura law, they were called municipal captains, but this when the justice courts were already established. Hence it is that during all former times the *gobernadorcillo* of a town assumed, as did the *alcaldes mayores*, the exercise of both executive and judicial authority within his sphere of action.

Sixth period.—This period is marked by the complete separation of the executive and judicial powers. On the 26th February, 1886, the royal decree which established civil government was promulgated, establishing civil governments in the place of *alcaldias mayores*, and the judges who held these offices, the same as those who operated in the provinces governed by the politico-military governor, were limited in their authority to the administration of justice in first instance. The same separation had been put into operation in the towns the year before by the creation of the justice courts, and the functions of the *gobernadorcillos* were limited to executive matters, inasmuch as judicial matters had been transferred to the justice of the peace, but the truth is that the *gobernadorcillos* still continued to take cognizance of preliminary proceedings in criminal matters with regard to crime committed in their respective towns, in accordance with an *auto acuerdo* of 1860, issued by the real acuerdo of the *audiencia* of Manila, this being merely a preliminary investigation for the determination of the existence of the crime and responsibility of the delinquent. The provinces in which the *alcaldes mayores* were abolished were: Albay, Bataan, Batangas, Bulacan, Camarines Norte, Camarines Sur, Cagayan, Laguna, Mindoro, Nueva Ecija, Nueva Vizcaya, Pangasinan, Pampanga, Ilocos Norte, Ilocos Sur, Isabela, Tayabas, and Zambales.

This separation had already been affected in the province of Manila since 1860, by virtue of the royal decree of the 1st September, 1859, which conferred upon a civil government the functions and powers of administration formerly exercised by the *alcalde mayor*, who was judge of first instance of Tondo.

Translation by F. C. Fisher.

Another one of the most remarkable acts of this period was the already above-mentioned establishment of the "*audiencia*" of Cebú, which is due to another royal decree bearing the same date, February 26, 1886. It was installed in the city of Cebú, capital of the Visayan Islands, and entered into the exercise of its functions on July 1 of the same year. This "*audiencia*" was composed of a chief justice, a presiding judge of chamber (*sala*), 4 associate justices (*magistrados*), 1 public prosecutor (*fiscal*), 1 assistant public prosecutor (*teniente fiscal*), 1 deputy assistant public prosecutor (*abogado fiscal*), 2 secretaries of chambers, and the necessary auxiliary and clerical force. The territory comprised within the jurisdiction of this "*audiencia*" covered the islands of Cebú, Negros, Panay, Samar, Paragua, Calamianes, Masbate, Ticao, Leyte, Jolo, and Balabac, with the islands contiguous to them.

To crown all these laws regarding the judicial organization of the archipelago, a royal decree was issued on January 5, 1891, for the ultramarine provinces and possessions of Spain. This decree became definitely the organic law of the judicial power in the colonies beyond the sea and was equivalent to the law of 1870 for Spain. Its necessity was felt, and this more so by the knowledge that a law of this nature existed in the metropolis. In accordance with this organic law of a judicial power, 2 territorial "*audiencias*" were established, 1 in Manila

of 1 chief justice, 2 presidents of chambers, 8 associate justices, 1 public prosecutor (fiscal), 1 assistant public prosecutor (teniente fiscal), 3 deputy assistant public prosecutors (abogados fiscales), 1 secretary of administration (gobierno), and 2 secretaries of chambers, and another one in Cebú composed of a president, a presiding judge of chamber, 4 associate justices, 1 "fiscal," 1 "teniente fiscal," 1 "abogado fiscal," 1 secretary of administration, and another one of chambers. (Articles 21 and 22.)

The sections mentioned also specify the territory over which each of these two "audiencias" exercise jurisdiction, and specify the courts of first instance subject to each one. The existence of two chambers in the "audiencia" of Manila is confirmed (art. 25); everything in reference to substitute associate justice is determined (arts. 40 and 41); admission in, promotion to, and filling vacancies of whatsoever category of judicial functionaries (art. 43); the conditions common to all these judicial functionaries (arts. 73-85); the creation of municipal judges or justices of the peace is confirmed and their appointment is reserved to the chief justices of the territorial "audiencias" by virtue of the recommendation in ternary made by judges of first instance during the first fifteen days of May (arts. 86-104); the sections following up to 139 contain everything relative to appointments, oaths, taking possession, seniority, precedence, honors, and dress of the judges and associate justices. Everything, absolutely everything, in reference to the organization and exercise of the judicial power is regulated in this law which is yet in force, but amended in certain parts by virtue of General Order No. 22, issued by the United States military government in the Philippines, and which reorganized the administration of these islands.

These are, in résumé, the six periods of laborious development through which the judicial administration of these islands passed until the so long desired organic law of the administration of justice was enacted.

Very little is left to be said in order to impart a perfect knowledge in reference to this matter during the contemporaneous period until the arrival of the American Government.

The "audiencia" of Cebú ceased to be territorial and remained as an "audiencia" for criminal causes, the only territorial "audiencia" being the one of Manila. At the same time another "audiencia" for criminal matters was established in Vigan, capital of the province of southern Ilocos. All this was done by a royal decree, dated May 19, 1893. The personnel of the "audiencias" for trying criminal cases in Cebú and Vigan was reduced for each one to a president, two associate justices, a "fiscal," a "teniente fiscal," and a secretary with the necessary auxiliary and copyists. These "audiencias" exercised their unctions when the uprising took place in these islands.

The courts of first instance of Barili in Cebú, of Lipa in Batangas, and of Dumaguete in Negros, were established in virtue of this last royal decree. Notwithstanding the establishment of civil governments in these provinces of the archipelago, and the separation of civil and judicial powers, still the political-military governments and commands with judicial powers subsisted in many districts, where they retained their military character. Formerly these political-military governors and commanders sat with advisers (asesores), who were generally judges of the first instance of the provinces nearest to the military

districts, or some lawyer who resided in said districts, but they were recently furnished with secretaries, called legal advisers (*asesores letrados*), because these secretaries had to be lawyers, and this was the rule when the revolution broke out. A report of all the judicial districts with their categories and classes follows.

Comprehensive list of the provinces and districts of these islands where public functionaries reside, who, as judges of first instance, exercised, before the former rule, judicial functions:

Courts of the first class.—Quiapo, Binondo, Intramuros, Tondo, Manila; Batangas, Pangasinan, Bulacan, Ilocos Sur, Pampanga, Laguna, Iloilo, Cebú, Ilicos Norte.

Courts of the second class.—Camarines Sur, Tayabas, Union, Nueva Ecija, Bacolod (west coast of Negros), Capiz, Cavite, Catbalogan (west coast of Samar), Tacloban (north coast of Leyte), Albay.

Courts of the third class.—Bataan, Camarines Norte, Maasin (south coast of Leyte), Zambales, Antique, Bohol, Cagayan, Isabela de Luzon, Mindoro, Concepcion (Iloilo), Barotac Viejo (Iloilo), Dumaguete (east coast of Negros), Abra, Tarlac, Zamboanga, Misamis, Lipa, Barili, Borongan (east coast of Samar), Sorsogon, Morong.

Political military governments and commands with judicial powers.—The districts of Lanao, Masbate and Ticao, Devao, Cottabato, Bataan Islands, Eastern Carolines, Western Carolines, Catanduanes Islands, Marianes Islands, Lepanto, Nueva Vizcaya, Romblon, Surigao, Paragua, Jolo, Amburayan, Apayaos, Balabac, Basilan, Benguet, Bina-tangan, Bongao, Bontoc, Burias, Butuan, Cayapa, Cabugaoan, Dapitan, Infanta, Calamianes Islands, Itaves, Matti, Principe, Quingan, Siassi, Tataan, Tiuan.

2. JUDICIAL PROCEDURE IN CRIMINAL MATTERS.

As the laws in reference to criminal matters are qualifying and contemplate the existence of substantive laws, which are applied in prescribed judicial remedies, invoked to preserve rights infringed upon, therefore it is not sufficient to present in résumé the laws regulating the procedure of the courts of justice, but also to present the substantive laws which were applied in the decisions rendered. Consequently the following question must be answered: "What laws were in force until the arrival of the American sovereignty?"

Since the conquest the Philippines were governed by special laws and by a general law. This general law was only the one known under the name of "Compiled Laws of the Indies;" this compilation (not a code, but merely a collection) was the general law for the Philippines and all the colonies held by Spain in America. Beyond this general law, the Philippines were only governed by laws specially enacted for this territory. Therefore the laws enacted in Spain or for Spain were not in force in these islands, unless they were expressly transferred to them to be applied, the governor-general issuing his decree of "Let it be complied with," or that they may be complied with, ordering the laws to be made public by insertion in the *Gaceta de Manila* and informing all the authorities and governors; without this requisite the law did not go into force. In all the political conditions of Spain, since the beginning of this century, is a section containing this or a like expression—"The Philippine Islands shall be governed by special laws."

Which are the special laws? Those compiled in the work to which reference has been made in the foregoing paragraph, and which bears the title of "Autos Acordados de la Audiencia de Manila;" those printed in the "Gaceta de Manila," covering a period of forty years; as also those contained in different private compilations published by studious persons, among which rises loftily the collection known by the name of Rodriguez S. Pedro; the old but continued collection of Zamora ought also to be consulted. It is further of interest to know that the collection of Rodriguez S. Pedro has been continued in the "Boletin del Ministerio de Ultramar," but it seems that the series does not reach 1890. Unfortunately the juriconsult who studies in these islands or in Spain must necessarily be ignorant of the complete collection of this country, because no such one has ever been compiled.

Did not the laws of Spain govern in these islands? To answer this question, two laws of the mentioned "Compilation of the Indies," and which contain the rule for applying laws in this territory, must be taken into consideration. Law 2, Title 1, Book 2, provided and ordered that in those cases to which no special or general law enacted and not annulled for the Indies or contained in said compilation could be applied, the laws of Castile, in conformity with the one of the "Toro", should be observed; that is one of the eighty-three laws enacted by the Parliament (Cortes) of Toro, and which are inserted in the "Novisima Recopilacion" of the laws of Castile. These laws to be observed as well in reference to the substance, resolution, and decision of civil actions as in reference to the form and order of procedure. Law 66, Title 15, of the same Book 2, provided the same not only for civil suits but also for criminal actions, so that crimes might not go unpunished.

Although only briefly, still something must be said about what is understood in Spain and the Philippines by the prelation or the codes of laws. The jurisprudence was so voluminous, the laws so many, it might have been said as in Rome of old that the literature which covered this field was centum camellorum onus (the burden of a hundred camels), and therefore it became necessary that a law should determine the order in which they should be applied, and this law was the one cited in "Toro" and nowadays inserted in the "Novisima Recopilacion." The order in which the laws are applied is as follows:

IN SPAIN.

- A. The laws enacted after the body of laws or compilation named "Novisima Recopilacion de Castilla" had been published.
- B. The Novisima Recopilacion de Castilla.
- C. Fuero Juzgo.
- D. Fuero Real.
- E. The Partidas of King Alphonse the Wise.

In accordance with the mentioned laws of the compilation of the Indies, the order of preference in the Philippines was:

- A. The laws, royal decrees, royal orders, specially ordered to be complied with here.

B. The "Autos Acordados" of this "Audiencia" of Manila, when enacted by the members of the "Audiencia" assembled in the form of a court (Real Acuerdo), presided over by the governor-general and approved by royal order.

- C. The Compilation of the Indies.

D. The Novisima Recopilacion de Castilla.

E. Fuero Juzgo.

F. Fuero Real.

G. The Partidas.

The laws applied here were those marked D and G, because they contained civil and criminal laws, as also laws of procedure in civil and criminal actions. The "Partidas" had the precedence over the Novisima Recopilacion de Castilla for the following reason.

The Novisima Recopilacion de Castilla was made at the beginning of the present century (1805), and its lawful authority is beyond dispute. The Partidas were composed in the thirteenth century (1256-1263), and no absolute proof exists that they were published as a general law for the Kingdom. Notwithstanding this, all who have studied the legislation of Spain know that the Partidas were oftener quoted, were better known, and more oftener applied than the Novisima Recopilacion, although the Recopilacion, being the more modern and the one ordered to be complied with, should have enjoyed greater authority. The reason therefor is stated by the learned Alonzo Martinez in a speech made at the opening of the supreme court of Spain. He said:

The Siete Partidas are undoubtedly in principle and form, by reason of their contents, the clearness of the composition, and the inimitable graceful language and style, an imperishable monument of wisdom, without rival in Europe during the Middle Ages; and, as everything which is superior rules by legitimate right, this code has been in the past and is still yet the beacon which illuminates and guides the courts, judges, and lawyers through the darkness of our contracted and contradictory civil legislation.

Still another reason exists in the Philippines. The Partidas were formed at that time from the most advanced elements of Roman and canonical law, and the juriconsults in the Philippines studied more these two laws than the genuine Spanish law represented by the Novisima Recopilacion, and in which still predominated, although Roman and canonical elements figured in it, the German law upon which the Fuero Juzgo and, in great part also, the Fuero Real are based.

And the laws marked A in the order of precedence in Spain, do they not apply in the Philippines?

These laws, the most modern published after 1805, the year in which the Novisima Recopilacion went into force, were they of less importance than the Partidas composed in the thirteenth century?

Unfortunately, this was always the understanding, owing to the provisions of those laws of the compilation of the Indies and to the sections of the several Spanish constitutions, which always decreed that the islands should be governed by special laws, and that those enacted in the Peninsula did not apply to the Philippines, unless they were specially transferred to the governor-general of the archipelago to be complied with. They were applied in a certain manner. The whole was a series of codes from A to G. In the course of time this series was not sufficient, and cases came up which could not be decided owing to the absence of a law. In such cases said laws of the Peninsula were applied as supplementary laws—that is, as a doctrine of law or jurisprudence. And really, during the last quarter of the nineteenth century, the tendency was rather to consult this doctrine of law and jurisprudence than to apply those ancient laws, unless in matters about which an express provision, not abolished by custom or use, existed.

Having stated the preliminaries it is easy to understand the following brief explanations:

1. A code of criminal procedure did never exist in the Philippines, not even an arranged compilation of lawful provisions relating to criminal procedure. There were only scattered provisions in the form of laws, royal "cedulas," royal orders, and autos acordados.

2. In every period (the undersigned has had the curiosity to examine the oldest records) criminal cases (juicios) were always instructed with all the substantial forms of a real trial, a complaint, defense, and sentence preceding this trial, which afterwards was called the "plenario" period. The "sumario" period preceded and represented the investigation for the purpose of proving the existence of the crime and the probable responsibility of the accused.

3. Although there was no systematic law or complete body of laws in reference to criminal procedure, still a constant and uniform practice existed in all the provinces throughout the islands, which was regulated by a provision written in 1860, and finally this practice adjusted itself—ever since the penal code and the provisional rules accompanying it went into force—to a systematic law, with principles, maxims, and rules of formal procedure.

And the constant and uniform practice, if there existed no systematic law or precedence, from where was it derived?

Undoubtedly from tradition, scientific treatises which existed in every epoch, text-books for the teaching and practice based upon the Roman annotators, whose influence is evident in the records kept in the archives of this supreme court. This practice in the last half of the century rests upon the theoretical practical treatise written by Don Juan Maria Rodriguez, in which the lawyers and judges of the islands studied until the codes and laws of procedure were composed in Spain.

In 1860 the criminal procedure is for the first time arranged methodically by the autos acordados of August 31 and September 4 of said year, and which contain certain rules, specially for the gobernadorcillos of villages (now alcaldes), so that they could institute the first preliminary proceedings. When the penal code went into effect in 1887, it may be said that by applying, as a supplementary law, the laws of criminal procedure of 1872, 1880, and 1882 of the Peninsula, together with said provisional rules for the application of the Penal Code, there existed already a perfect systematical and scientific procedure.

The substantive laws applied for defining crimes were the penal laws contained in the already mentioned codes, in other codes of the Philippines, as for example, those which punished the theft of cattle, the smuggling of opium, vagabondage, etc.; but in reference to applying the penalty it was rather a customary (consultudinario) law at the discretion of the judge.

The penalties were:

- (a) Infamous death by garrote.
- (b) Ten years penitentiary with retention (presidio con retencion), which is equal to life imprisonment (cadena perpetua).
- (c) Penitentiary (presidio) from two to ten years.
- (d) Imprisonment at hard labor (trabajos publicos) from six months to two years.
- (e) Ordinary imprisonment up to six months.

When the penal code went into effect the substantive law governing the definition of crimes was contained in the sections of said code. The qualifying code for criminal procedure is the Provisional Law for the Application of the Penal Code in the Philippine Islands. Article 95 of said Provisional Law, when revoking the laws and provisions

(disposiciones) governing the procedure, orders that the laws in force in the Peninsula shall still be applied as supplementary laws and as a doctrine to be respected.

In reference to this point I consider it of the utmost importance to call attention, as a matter of critical examination, to an important error which has been intervened. This court received an English translation of the penal code in force in the Philippine Islands, bearing the stamp: "Washington—Government Printing Office—1900." On page 125 begins an appendix under the head of "Amendments and Additions to the Penal Code." Under the subheading of "Section III—Penal Code," a royal decree of September 12, 1897, is inserted which changes completely the laws in the Philippines. Very well, this royal decree has never been promulgated and never entered in force here. It is a historical fact that the Canovas cabinet, under whose administration Castellanos, the secretary of colonies (ministerio de ultramar) made this law, ceased to be in power shortly after said royal decree was issued. Consequently it is necessary to consider that this royal decree did not amend any of the articles contained in the Philippine penal code; this, at least, is the opinion of legal critics, which merits respect.

Taking for granted that a relative perfection, due to a penal code and a systematized criminal procedure has been reached, has there been achieved unity for all citizens? No, not all the citizens are governed by one sole penal code or by one sole criminal procedure. In reference to acts defined as misdemeanors, a unification has been nearly arrived at, but in reference to crimes, even ordinary ones, the special privileges (fueros especiales) mentioned in the first part of this report remain yet in force.

(A) The army privileges (fuero militar del ejército), with its code of military justice and other later laws, granting cognizance of very serious cases to said jurisdiction.

The military code (código de justicia militar) is a mass of penal laws, of judicial organization and criminal procedure.

(B) The navy privileges (fuero militar de la marina) is analagous to the foregoing.

(C) Ecclesiastical privileges (fuero eclesiastico), with the exception of atrocious crimes.

With the arrival of American sovereignty, the classes to which said codes referred, the Spanish army and navy disappeared de facto. It can not be considered that these class laws were reestablished by the proclamation of the American general headquarters, dated August 14, 1898.

Notwithstanding the foregoing, these two codes were not entirely laws for classes; they were also general laws of procedure in reference to acts defined as being excepted from the ordinary jurisdiction of civil courts, and in this part said excepted acts were also defined as such by the laws of procedure governing ordinary jurisdiction, as, for example, in the compilation of 1880 in force in the civil courts.

No mention is made, for well-known reasons, of the general orders of the United States military governor, neither of those issued in reference to the privileges suppressed, nor of those extending or restricting the ordinary jurisdiction of the civil courts. For the same reasons it is not necessary to state that the privilege "C" has also disappeared, but remained in reference to ordinary crimes at the arrival of American sovereignty.

To finish this second paragraph it is only necessary to mention the following important points:

- (A) The form in which judgment shall be drawn.
- (B) The recourses against said judgment.

(A) THE FORM IN WHICH JUDGMENTS SHALL BE DRAWN.

Judgments did not rest upon conclusive bases until the noteworthy royal *cédula* of January 30, 1855, was issued, and when yet absolute discretionary judicial powers rule in determining the circumstances of crimes and the corresponding penalties. But since said royal *cédula* went into force every definitive or interlocutory judgment must rest upon conclusive bases, must succinctly state the facts alleged in paragraphs, which shall commence with the words "It appearing" (*resultando*), and in continuation the points of law shall be stated, commencing with the word "considering" (*considerando*); judgments shall be entered commencing with the words "I or we decide" (*fallo or fallamos*).

When the "provisional law for the application of the penal code" went into force the discretionary judicial powers ceased entirely, because, even before the penal code of the Philippines governed, this discretionary power was being changed into a standard, by which, in accordance with jurisprudence and the doctrine of the Spanish Penal Code of 1850, a judgment can be formed; and here all the judges and courts by qualifying the crimes and circumstances were anxious to conform thereto in their judgments. I repeat, that since the enactment of said law judgments are rendered in accordance with all the requisites prescribed by law and limited to circumstances, in such a manner that a judgment, in accordance with law, must contain all the elements of decisive reasoning.

The importance of the "It appearing" (*considerando*) in a judgment in a criminal action compels me to say a few words in reference to considering evidence in criminal cases.

The history of our courts marks two periods: one is the discretionary (*tasable*) evidence. This system of considering evidence commences at the time when the code of "*Partidas*" predominated. In accordance with said system, two or more witnesses were generally sufficient for a conviction. Unless this was the case, no matter how strong circumstantial evidence might be no conviction could be secured. The other period commences from the time when the doctrine and jurisprudence of the Spanish Penal Code of 1850 and the decisions of the supreme court of the Peninsula became known and were applied. Since then the system of a rational critique, according to which it was not the number but the weight and value of the evidence which might produce the rational conviction in reference to the culpability of the accused, pushed its way slowly ahead. This conviction could be secured through circumstantial evidence, for which rules were not lacking in accordance with doctrine and jurisprudence, and to-day the aforesaid provisional law for the application of the penal code furnishes a positive doctrine and jurisprudence.

(B) RECOURSES.

Three instances were recognized as a general rule since the most ancient times for crimes. The first ending with a judgment, which, if referring to public crimes, had either to be reviewed or could be appealed. The second, which ended with the judgment rendered in

open court (*vista*) by the *audiencias* and against which a prayer (*suplica*) could be filed. The third, when proper, which ended in another chamber of the *audiencia* with a judgment of review (*revista*), and said sentence was definitive and carried with it a writ of execution.

Since the penal code went into force, the third instance has been abolished, and when the recourse established by it was proper, now the recourse of "cassation" (annulment of sentence) to the supreme court of Spain took place.

3. CIVIL PROCEDURE.

The civil legislation governing until now the Philippines is not so confused as the criminal, as well as in its substantive as qualifying aspects.

Civil rights, since the most remote ages, were governed by the laws in which the sections marked in the preceding paragraph A, C, D, and G, in the series of the Philippines, and a résumé, especially the *Partidas* and the *Novísima Recopilación de Castilla*. Several important special laws consigned under the group A were enacted in this century, as the one of forcible expropriation, of waters, of intellectual property (copyright), of industrial property (trade-marks), of forests, of mines, etc., which affect in a great measure civil rights, even considering this law as belonging to the administrative order.

It can be contended that in this matter the civil legislation was completed by the enactment of the laws which have been quoted at the final. All these laws were very scientific, specially the one in reference to waters, which has been amended recently in Spain, together with the one in reference to ports. Above all this was accomplished the enactment of the civil code, enacted after the period of ten years specified in it, as is proven by the results of its application during the time it is in force.

Treating of civil rights, the legislative power has always paid the greatest attention, and more so in the present century, to the commercial rights.

The commercial code has even taken special part in the civil code the same in Spain as in other nations, and the Philippines are not an exception thereto. The first commercial code was published in Spain in 1829, and shortly afterwards it went into force in the Philippines. This code as amended and now in force was reenacted in 1888.

The mortgage law is the perfect completion of all laws in reference to proprietary rights. Until 1899 the law governing in Spain was not applied to the Philippines. Shortly afterwards the Spanish Government amended said law respecting the colonies, but not in Spain. This amendment was really a practical and progressive step, and such is the present mortgage law, in force since 1893.

The purpose and importance of this law are the objects of a separate report, as a study in reference to it would be foreign to the matters of which this report treats.

The notarial law is also a completion in every sense of the word, and in certain parts a substantial completion of the civil law. This law, according to learned writers, is, together with the law of waters, one of the best enacted in Spain.

As well this law as the former are in a certain manner laws of judicial organization, because the organization of recorders (*registros*) of property and of notaries, persons perfectly versed in law,

specially so recorders, is judicial, and these functionaries figure among the judicial personnel. But this organization and its development in these islands are matters which have been already stated in the above-mentioned report on the mortgage law, because it seems improper to speak of them in the present report, which treats of the administration of justice.

Civil actions and the general practice since the most remote ages were also governed by the codes and laws stated under the letters A, B, C, D, and G, until the royal *cédula* of January 30, 1855, and civil code of procedure of 1888, now in force, were enacted.

The general practice was derived from the class of studies pursued by the lawyers in the universities, or, rather, from those which existed in the Philippines, and in remote times from the practice in Mexico. The most important and precise work, always consulted by judges and lawyers, was the already mentioned treatise written by an author named Juan María Rodríguez.

A really systematized law of civil procedure did not exist until the royal *cédula* of 1885 and the "*autos acordados*" of August 31 and September 4, 1860, already mentioned in the second part of this report, where the competence of *gobernadorcillos* is determined in reference to taking cognizance of verbal complaints up to the amount of \$44, a competence which was abolished by the establishment of courts of first instance. But in reference to commercial matters, together with the commercial code, a law of commercial procedure was enacted, which is the base of the civil law of procedure first published in Spain in 1855 and amended by the one now in force, which was, as already stated, the one which governs in these islands since 1888.

From this logical indication it is seen that the principles and rules of procedure contained in the royal *cédula* of January 30, 1855, although in a very synthetical form, were the work of the legislative commission which prepared the first law of civil procedure in Spain, with the particularity that the plan of the commission was published here a few months before it was published in Spain.

These instances, as well as the ones stated before in criminal actions, were also recognized in civil actions. Notwithstanding this, the third instance, since the publication of the royal *cédula* of January 30, 1855, has been converted into the recourse of cassation before the supreme court of Spain. The appreciation of evidence was also subject to the two systems already explained, with the sole difference that the modern system, which is not called the system of conviction or rational critique, which admits circumstantial evidence, but limits itself to prescribe that the declarations of the witnesses should be appreciated in conformity with the rules of sound criticism.

This is what pertains in rigor to a historical report on the administration of justice. It gives details in reference to the exercise of all the civil rights of the citizens in relation to the said laws and the laws of procedure. Special reference to the civil code and code of civil procedure, now in force, will be the object of another report, with the character of a critical study, which judges these rights as they must be judged since the arrival of the new sovereignty.

The code of civil procedure by itself offers, in my humble opinion, a wide field for numerous and highly important observations.

(Translation by Frank de Thomas.)

MANILA, November 28, 1900.

S. Doc. 112—16

EXHIBIT K.—Abstract of imports and exports, by months, showing values and duties and all other collections for the ports of Manila, Cebú, Iloilo, Jolo, Siassi, and Zamboanga from the date of American occupation to September 30, 1900.

MANILA.

Months.	Imports.			Exports.		All other collections.	Total collections.
	Free and dutiable value.	Dutiable.		Value.	Duty.		
		Value.	Duty.				
1898.							
August and September	\$3,996,276	\$3,496,276	\$626,786	\$5,069,404	\$121,080	\$4,765	\$752,631
October	2,532,656	1,990,966	218,429	2,149,654	46,585	753	264,717
November	2,045,062	2,042,252	285,187	2,434,964	88,010	2,838	375,965
December	3,227,182	3,227,182	429,016	2,196,770	80,749	2,432	612,197
Total	11,801,166	10,756,666	1,559,368	11,820,812	835,374	10,788	1,906,530
1899.							
January	4,609,126	4,609,126	544,191	2,505,606	92,291	5,834	642,346
February	2,563,570	2,563,570	353,625	6,919,136	86,535	5,197	445,357
March	1,796,080	1,796,080	400,436	1,737,262	76,255	10,246	486,936
April	1,577,494	1,577,494	595,214	1,444,392	39,813	4,811	639,838
May	1,866,468	1,866,468	660,865	1,723,452	77,879	12,219	750,964
June	1,614,042	1,614,042	602,337	1,634,524	63,616	18,439	684,392
July	3,081,922	2,340,518	582,152	1,814,240	61,132	8,629	651,913
August	5,694,440	5,306,838	634,838	2,792,200	71,938	8,233	715,009
September	4,313,334	3,514,176	539,119	2,958,000	92,820	17,190	649,130
October	5,077,666	4,488,274	550,872	2,001,804	58,403	22,174	631,448
November	2,469,282	1,813,182	586,800	1,602,194	17,360	32,850	637,010
December	2,750,980	2,150,876	677,731	1,163,084	11,654	26,602	715,987
Total	37,414,754	33,640,574	6,728,180	28,295,894	749,696	172,424	7,650,300
1900.							
January	2,862,666	2,036,432	660,208	1,116,832	19,685	64,433	734,322
February	1,796,536	1,666,324	571,974	2,628,598	63,372	17,828	653,169
March	2,678,270	2,519,664	823,972	6,785,930	186,235	20,944	1,031,151
April	2,491,136	2,322,200	743,543	4,110,266	95,722	105,771	945,037
May	3,648,544	3,406,808	1,046,919	3,438,654	114,179	17,775	1,178,872
June	4,892,156	3,478,342	1,111,402	3,991,976	97,440	18,543	1,227,385
July	5,045,304	4,147,614	1,246,176	4,424,578	104,257	18,031	1,368,464
August	5,499,240	4,004,412	1,184,879	3,345,304	75,382	22,249	1,282,510
September	4,751,666	4,533,820	1,262,342	3,835,190	110,584	14,249	1,387,175
Total	33,665,518	28,115,616	8,641,410	33,677,388	866,856	299,818	9,808,085

CEBÚ.

1899.							
April	\$76,136	\$76,136	\$32,497	\$66,066	\$2,412	\$36,676	\$71,585
May	267,266	267,266	62,949	641,662	30,525	601	94,076
June	260,960	260,960	74,100	524,408	20,371	754	95,224
July	321,740	321,740	76,304	126,964	3,841	1,279	81,423
August	129,084	129,084	45,778	787,272	30,528	220	76,526
September	19,004	19,004	9,071	578,304	16,633	410	26,114
October	52,672	52,672	28,064	160,268	14,689	169	42,922
November	121,516	121,516	30,742	1,224,048	23,947	421	60,109
December	291,292	291,292	72,218	484,156	14,339	595	87,153
Total	1,539,670	1,539,670	431,723	4,593,188	162,285	41,125	685,132
1900.							
January	16,672	16,672	7,711	198,900	4,410	1,356	13,478
February	14,456	14,456	6,786	75,596	2,042	1,994	10,822
March	147,630	147,630	40,374	72,622	9,686	1,183	51,243
April	39,522	39,522	12,740	124,872	3,442	2,474	18,656
May	206,874	206,874	52,946	683,156	19,222	1,852	74,020
June	341,076	341,076	89,459	288,834	8,731	3,913	102,107
July	330,800	330,800	86,105	838,574	23,830	3,349	113,285
August	868,766	868,766	206,477	781,432	24,669	2,714	238,869
September	124,942	124,942	43,524	523,760	19,504	1,029	64,057
Total	2,090,788	2,090,788	546,122	3,537,746	115,586	19,869	661,527

EXHIBIT K.—Abstract of imports and exports, by months, showing values and duties and all other collections for the ports of Manila, Cebu, Iloilo, etc.—Continued.

ILOILO.

Months.	Imports.			Exports.		All other collections.	Total collections.
	Free and dutiable value.	Dutiable.		Value.	Duty.		
		Value.	Duty.				
1899.							
February	\$113,524	\$113,524	\$37,420	\$83,424	\$2,810	\$75	\$40,306
March	19,816	19,816	4,056	358,370	12,919	208	17,179
April	179,302	179,302	66,837	657,032	18,601	858	85,796
May	299,626	299,626	96,743	1,182,092	40,601	896	138,240
June	228,568	228,568	78,446	984,326	36,153	423	115,022
July	258,536	258,536	70,603	631,342	17,758	1,129	89,488
August	865,860	865,860	121,344	959,018	36,260	1,182	158,787
September	76,492	76,492	41,787	61,046	1,852	706	44,345
October	1,400,786	1,400,786	65,753	.....	.....	449	66,201
November	80,996	80,996	37,553	93,808	3,518	416	41,488
December	198,432	198,432	75,076	422,082	11,021	156	86,253
Total	3,221,938	3,221,938	696,618	5,432,540	181,493	5,993	883,106
1900.							
January	225,242	224,914	69,759	196,316	7,890	881	78,469
February	108,024	108,024	48,728	64	.....	2,068	50,795
March	140,876	140,876	44,948	162,676	5,641	2,891	53,480
April	267,992	267,100	83,417	621,014	18,168	709	102,294
May	165,022	164,012	61,310	756,244	25,272	1,016	87,596
June	896,920	897,664	122,355	280,870	9,561	1,492	133,408
July	481,894	480,920	144,466	311,966	9,647	1,807	155,920
August	687,416	685,450	185,996	201,900	6,448	1,899	194,343
September	426,084	425,490	122,624	196,400	6,001	1,855	130,481
Total	2,896,420	2,888,554	883,601	2,626,470	88,568	14,618	986,788

JOLO.

1900.							
January	\$5,902	\$5,792	\$2,485	\$106,066	\$1,952	\$181	\$4,618
February	36,110	31,700	9,500	22,628	639	172	10,311
March	41,952	41,502	14,140	15,774	538	708	15,381
April	22,894	19,642	5,308	27,568	714	92	6,114
May	31,608	30,958	11,270	7,800	261	105	11,637
June	30,380	27,194	8,799	22,554	735	182	9,716
July	68,752	64,780	18,424	15,118	216	307	18,947
August	0	0	0	0	0	0	0
September	0	0	0	0	0	0	0
Total	237,598	221,568	69,926	216,308	5,065	1,742	76,724

SIASSI.

1900.							
February	\$15,490	\$15,490	\$4,836	\$800	\$18	0	\$4,354
March	0	0	0	0	0	\$2	2
April	2,452	2,452	587	24,228	120	15	723
May	7,996	7,676	3,097	6,924	18	74	3,189
June	18,116	12,822	4,379	25,664	99	43	4,521
July	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0
September	0	0	0	0	0	0	0
Total	39,064	38,440	12,899	57,616	255	134	12,789

ZAMBOANGA.

1900.							
January	\$860	\$270	0	\$1,624	0	0	0
February	4,238	4,064	0	520	0	0	0
March	7,602	6,484	0	762	0	0	0
April	2,816	1,820	0	208	0	0	0
May	3,420	2,182	0	0	0	0	0
June	9,716	9,074	0	4,968	0	0	0
July	0	0	0	0	0	0	0
August	0	0	0	0	0	0	0
September	0	0	0	0	0	0	0
Total	28,652	23,894	0	8,082	0	0	0

EXHIBIT K.—*Abstract of imports and exports, by months, showing values and duties and all other collections for the ports of Manila, Cebu, Iloilo, etc.—Continued.*

SUMMARY.

Year and port.	Imports.			Exports.		All other collections.	Total collections.
	Free and dutiable, value.	Dutiable, value.	Duty.	Value.	Duty.		
1898.							
Manila	\$11,801,166	\$10,756,666	\$1,559,368	\$11,820,812	\$335,374	\$10,788	\$1,905,530
1899.							
Manila	37,414,754	33,640,574	6,728,180	28,295,894	749,696	172,424	7,650,300
Cebu	1,539,670	1,539,670	431,723	4,593,188	162,285	41,125	635,132
Iloilo	3,221,938	3,221,938	696,618	5,432,540	181,493	5,998	883,105
Total	42,176,362	38,402,182	7,856,521	38,321,622	1,098,474	219,542	9,168,537
1900.							
Manila	33,665,518	28,115,616	8,641,410	33,677,388	866,856	299,818	9,806,065
Cebu	2,090,738	2,090,738	546,122	3,537,746	115,536	19,869	681,527
Iloilo	2,896,420	2,888,564	883,601	2,626,470	88,568	14,618	986,788
Jolo	237,598	221,568	69,926	216,308	5,065	1,742	76,724
Siasi	39,054	38,440	13,399	57,616	256	134	12,789
Zamboanga	28,652	23,594	0	8,082	0	0	0
Total	38,967,980	33,378,810	10,153,458	40,123,610	1,076,270	356,270	11,565,913
Grand total	92,985,508	82,537,658	19,568,347	90,266,044	2,506,118	566,511	22,639,980

Reports not yet received from ports marked —.

Respectfully submitted.

JAMES F. SMITH,

Brigadier-General, U. S. V.,

Collector of Customs of the Islands and of the Chief Ports.

OCTOBER 2, 1900.

ACTS OF PHILIPPINE COMMISSION.

[No. 1.]

AN ACT appropriating two million dollars (\$2,000,000.00) Mexican to be used in the construction and repair of highways and bridges in the Philippine Islands.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The sum of two million dollars (\$2,000,000.00) Mexican is hereby appropriated out of any money in the insular treasury, not otherwise appropriated, to be expended in the immediate construction and repair of highways and bridges in the Philippine Islands.

SEC. 2. The sum so appropriated shall be expended under the direction of the military governor in the construction and repair of such highways and bridges as in his judgment may be most conducive to the public welfare.

SEC. 3. The insular treasurer is hereby authorized and directed to pay the warrants of the military governor for the sum so appropriated.

SEC. 4. This act shall take effect on its passage.

Enacted, September 12, 1900.

WM. H. TAFT, *President.*

A. W. FERGUSON, *Secretary.*

[No. 2.]

AN ACT appropriating five thousand dollars (\$5,000.00) Mexican for the purpose of making a survey to ascertain the most advantageous route for a railroad into the mountains of Benguet, island of Luzon, and the probable cost thereof.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The sum of five thousand dollars (\$5,000.00) Mexican, or so much thereof as may be necessary, is hereby appropriated out of any funds in the insular treasury, not otherwise appropriated, for the purpose of making a survey to ascertain the most advantageous route for a railroad into the mountains of Benguet, island of Luzon, and the probable cost thereof.

SEC. 2. The disbursing officer of the commission is authorized and directed to draw his warrant for the amount appropriated by this bill, or so much thereof as may be necessary, and the insular treasurer is directed to pay the same.

SEC. 3. This act shall take effect on its passage.

Enacted, September 12, 1900.

WM. H. TAFT, *President.*

A. W. FERGUSON, *Secretary.*

[No. 3.]

AN ACT appropriating two thousand six hundred and seventeen dollars and ninety-six cents (\$2,617.96) in the money of the United States for the purpose of paying the salary and expenses of Fred W. Atkinson for the period from May 5 to September 1, 1900.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The sum of two thousand six hundred and seventeen dollars and ninety-six cents (\$2,617.96) in the money of the United States is hereby appropriated out of any funds in the insular treasury, not otherwise appropriated, for the purpose of paying Fred W. Atkinson, superintendent of public instruction in the Philippine Islands, for services rendered and expenses incurred by him under direction of the Commission preliminary to assuming formally the duties of his office in the islands, for the period from May 5 to September 1, 1900.

SEC. 2. The disbursing officer of the Commission is authorized and directed to draw his warrant for this amount in favor of Fred W. Atkinson, and the insular treasurer is directed to pay the same.

SEC. 3. This act shall take effect on its passage.

Enacted, September 12, 1900.

WM. H. TAFT, *President.*

A. W. FERGUSON, *Secretary.*

[No. 4.]

AN ACT appropriating one hundred dollars (\$100.00) in the money of the United States for the purpose of paying the salary of the property clerk in the department of education for the period of one month from September 8 to October 8, 1900.

By the authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The sum of one hundred dollars (\$100.00) in the money of the United States is hereby appropriated out of any funds in the insular treasury, not otherwise appropriated, for the purpose of paying the salary of the property clerk in the department of education, for the period of one month from September 8 to October 8, 1900.

SEC. 2. The Military Governor is authorized to draw his warrant in favor of the duly appointed property clerk for the amount designated in section first of this act, and the insular treasurer is directed to pay the same.

SEC. 3. This act shall take effect on its passage.

Enacted, September 12, 1900.

WM. H. TAFT,
President.

A. W. FERGUSON, *Secretary.*

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 19th day of September, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON,
Secretary.

[No. 5.]

AN ACT for the establishment and maintenance of an efficient and honest civil service in the Philippine Islands.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The commission shall appoint three persons to be members of a board to be called the Philippine civil-service board. The Commission shall designate one of such persons as chairman, and another as secretary, and may in its discretion designate from among the members of the board a chief examiner.

SEC. 2. No person shall be eligible for appointment as a member of the board unless he shall be a native of the Philippine Islands owing and acknowledging allegiance to the United States, or a citizen of the United States.

SEC. 3. Each member of the board shall, during his incumbency reside in Manila, and shall receive an annual salary of three thousand dollars and his necessary traveling expenses while in the discharge of his official duties. In case the Commission shall designate a member of the board to act as chief examiner he shall receive in addition to his salary as a member of the board a further annual compensation of five hundred dollars.

SEC. 4. The board shall prepare rules adapted to carry out the purpose of this act, which is hereby declared to be the establishment and maintenance of an efficient and honest civil service in all the executive branches of the government of the Philippine Islands, central, departmental and provincial, and of the city of Manila, by appointments and promotions according to merit and by competitive examinations where the same are practicable, and it shall be the duty of all officers in the Philippine civil service in the departments and offices to which any such rules may relate, to aid in all proper ways in carrying said rules and any modifications thereof into effect.

SEC. 5. This act shall apply, except as hereinafter expressly provided, to all appointments of civilians to executive positions under—

- (a) The military governor;
- (b) The United States Philippine Commission;
- (c) The treasurer for the islands;
- (d) The auditor for the islands;
- (e) The collector of customs for the islands;
- (f) The collector of inland revenue for the islands;
- (g) The director of posts for the islands;
- (h) The civil-service board;
- (i) The bureau of forestry;
- (j) The bureau of mines;
- (k) The general superintendent of public instruction;
- (l) Wardens of penitentiaries and prisons;
- (m) The provost marshal-general of Manila;
- (n) The captain of the port at Manila.

SEC. 6. The rules to be adopted by the board shall provide—

(a) For the classification of all offices and employments specified in section 5.

(b) For the appointment for those offices requiring technical, professional, or scientific knowledge by competitive or noncompetitive examinations or otherwise, as the board shall determine.

(c) For the selection of members of the police force and of the fire department in the city of Manila and of guards at prisons and penitentiaries by competitive or noncompetitive examination, or otherwise, as the board, after consultation with the Military Governor and his approval, shall determine.

(d) For the selection of laborers, skilled and unskilled, according to the priority of their applications, by such noncompetitive examinations as may be practicable, and which need not, if the board shall so limit them, relate to more than the capacity of the applicants to labor, their habits of industry and sobriety, and their honesty.

(e) For the promotion of members of one rank of the classified service to the next higher rank by competitive examination. In the competition the board may provide, in its discretion, for the allowance of credit to the previous experience and efficiency of the applicant in the civil service of the islands, to be estimated by the officer or officers under whose direction the service has been rendered, under such limitations as the board, by general rule, may prescribe: *Provided*, That such credit shall not be allowed to any applicant who shall not attain a minimum average per centum to be fixed by the board.

(f) For a period of probation before the appointment or employment is made permanent.

(g) For the preparation and holding at Manila, Iloilo, and Cebu of open competitive examinations of a practical character for testing the fitness of applicants for appointment to the classified service, and the fitness of officers and employes for promotion therein; and for the preparation and holding of the same examinations in the United States under the auspices of the United States Civil Service Commission for original appointment.

(h) For selection, according to average percentage, from among those certified by the board as rated highest in such competition.

(i) For transfers under limitations to be fixed by the rules from one branch of the classified service to another, or from the Federal classified civil service of the United States to the classified service of the Philippine Islands.

(j) For reinstatements in the service under limitations to be fixed by the rules.

(k) For the examination in the Spanish language of all applicants who are citizens of the United States and in the English language of all applicants who are natives of the Philippine Islands, whenever, in the opinion of the board, knowledge of both languages is essential to an efficient discharge of the duties of the positions sought.

(l) For the holding of noncompetitive examinations when applicants fail to compete after due notice has been given of an open competitive examination to fill an existing vacancy.

(m) For a thorough physical examination by a competent physician of every applicant for examination in the United States and for rejection of every such applicant found to be physically disqualified for efficient service in the Philippine Islands.

(n) For limitation upon the age of those entering the lowest rank of the classified service, the maximum age under which shall not be greater than forty years and the minimum age not less than eighteen.

(o) For eliciting from all applicants for examination full information as to their citizenship, nativity, age, education, physical qualifications, and such other information as may reasonably be required affecting their fitness for the service which they seek to enter.

(p) For the employment of clerks and other employés for temporary service where it is impracticable to make appointments as provided in this act, for terms not exceeding ninety days, but no person shall be employed under this exception for more than ninety days in a year.

(q) The enumeration herein of the subjects to be covered by the rules of the board shall not be regarded as exclusive, but the board shall have power to adopt any rules not in violation of the limitations of the act, which will more efficiently secure the enforcement of the act.

SEC. 7. The board shall keep minutes of its own proceedings, and on or before the first day of January of each year shall make an annual report to the Military Governor and to the Commission showing its proceedings, the rules which it has adopted, the practical effect thereof and suggestions for carrying out more effectually the purpose of this act.

SEC. 8. The board shall supervise the preparation and rating and have control of all examinations in the Philippine Islands under this act. The board may designate a suitable number of persons in the Philippine civil service to conduct its examinations and to serve as members of examining committees, and when examiners with special, technical, or professional qualifications are required for the preparation or rating of examination papers, it may designate competent persons in the service for such special duty, after consultation with the proper officer, or officers under whom they are serving. The duties required of such persons as members of examining committees, or as special examiners, shall be considered as part of their official duties and shall be performed without extra compensation. When persons can not be found in the Philippine service with the necessary qualifications for special examining work that may be required, the board is authorized to employ at a reasonable compensation persons not in public employment for such work, which compensation shall be paid out of the general funds appropriated for the purposes of the board, on its order.

SEC. 9. The board may make investigations and report upon all matters relating to the enforcement of this act and the rules adopted hereunder, and in making such investigations the board and its duly authorized examiners are empowered to administer oaths, to summon witnesses, and to require the production of official books and records which may be relevant to such investigation.

SEC. 10. The board shall have a permanent office in the city of Manila. When examinations are to be held by the board, either in Manila, Iloilo, or Cebu, officers having the custody of public buildings shall allow their reasonable use for the purpose of holding such examinations.

SEC. 11. The head of each office to which this act applies shall notify the board in writing without delay of all appointments, permanent, temporary, or probational, made in the classified service in his office, of all rejections after the period of probation, and of all transfers, promotions, reductions, resignations, or vacancies from any cause in said service and of the date thereof; and a record of the same shall be kept by the board.

SEC. 12. When the board shall find that any person is holding a position in the civil service in violation of the provisions of this act or the rules of the board, it shall certify information of the fact to the disbursing and auditing officers through whom the payment of the

salary or wages of such position is by law required to be made, and if thereafter the disbursing or auditing officer shall pay, or permit to be paid, to the person such salary or wages, the payment shall be illegal, the disbursing officer shall not receive credit for the same, and the auditing officer who authorizes the payment shall be liable on his official bond for the loss resulting to the proper government.

SEC. 13. Any person in the Philippine civil service who shall wilfully or corruptly, by himself or in cooperation with one or more persons, defeat, deceive, or obstruct any person in the matter of his right of examination by said board; or who shall wilfully, corruptly, and falsely rate, grade, estimate or report upon the examination or standing of any person examined hereunder; or who shall wilfully and corruptly make any false representations relative thereto; or who shall wilfully and corruptly furnish any special or secret information for the purpose of improving or injuring the prospects or chances of any person so examined, or to be examined, employed, appointed or promoted, shall for each offense be punished by a fine not exceeding \$1,000, or by imprisonment for a period not exceeding one year, or by both such fine and imprisonment.

SEC. 14. Any person who shall wilfully and corruptly become the beneficiary of an act in violation of the last preceding section shall be punished as provided in that section.

SEC. 15. No inquiry shall be made, and no consideration whatever shall be given to any information, relative to the political or religious opinions or affiliations of persons examined, or to be examined, for entrance into the service, or of officers or employees in the matter of promotion; Provided, however, that disloyalty to the United States of America as the supreme authority in these islands shall be a complete disqualification for holding office in the Philippine civil service.

SEC. 16. Every applicant for admission to the Philippine civil service, shall, before being admitted to examination in the islands, take and subscribe the following oath before a justice of the peace in and for the province in which he is, or before a member of the civil service board, the members of which are authorized to administer the same:

OATH OF APPLICANT.

I, _____, having applied for admission to the civil service of the Philippine Islands, do solemnly swear (or affirm) that I recognize and accept the supreme authority of the United States of America in these islands and will maintain true faith and allegiance thereto; that I will obey the laws, legal orders and decrees promulgated by its duly constituted authorities; that I impose upon myself this obligation voluntarily, without mental reservation or purpose of evasion. So help me God. (The last four words to be stricken out in case of affirmation.)

(Signature) _____

Subscribed and sworn to (or affirmed) before me this _____ day of _____, 19—.

The oath of the applicant shall be filed with the secretary of the board.

SEC. 17. No officer or employé in the Philippine civil service shall, directly or indirectly, give or hand over to any other officer or employé in said service any money or other valuable thing to be applied to the promotion of any political object whatever and a violation of this sec-

tion by the giving or receiving officer or employé shall subject the violator to a penalty of not exceeding \$500 or to imprisonment not exceeding six months, or both, and upon conviction he shall be removed from office.

SEC. 18. No person in the Philippine civil service shall be under obligation to contribute to a political fund or to render a political service, or be removed or otherwise prejudiced for refusing to do so. Any person soliciting political contributions from public officers or employés shall be subject to the same penalties as those provided in the preceding section.

SEC. 19. In the appointment of officers and employés under the provisions of this act, the appointing officer in his selection from the list of eligibles to be furnished him by the board shall, where other qualifications are equal, prefer:

First. Natives of the Philippine Islands.

Second. All honorably discharged soldiers, sailors, and marines of the United States.

SEC. 20. The requirements of this act for entrance into the civil service, or for promotion by competitive examination, shall not apply to the selection of the treasurer for the islands; the auditor for the islands, the collector of customs for the islands, the deputy collector of customs for the islands, the collector of inland revenue for the islands, the director of posts for the islands, the head of the bureau of forestry, the head of the bureau of mines, the superintendent of public instruction, the members of the civil service board, or of one private secretary for the Military Governor and for each member of the U. S. Philippine Commission. But, after eighteen months from the date when the board shall certify that it has a sufficient list of eligibles to supply vacancies, vacancies occurring in all the foregoing offices, except in the private secretaryships above described, shall be filled without examination from a class to be composed of the first, second and third assistants in all the foregoing offices, the intention of this provision being that the appointing power may, by virtue hereof, transfer from one office to another a person deemed competent to fill the vacancy.

SEC. 21. The requirements of this act for entrance or promotion by competitive examination shall not apply to the office of cashier of the collector of customs for the islands, to the captain of the port at Manila, to the collector of customs at Iloilo, and to the collector of customs at Cebu, until one year after the date when the board shall make the certificate prescribed in the preceding section, after which vacancies in such offices shall be filled by promotion by competitive examination as in other cases.

SEC. 22. The persons now employed in the civil service of the Philippine Islands whose positions may be classified by the operation of this act and the rules herein provided for shall, unless dismissed by proper authority, continue in the service and discharge the duties assigned them; provided, that the board may, in its discretion, require by rule that all such employés shall pass examinations practically adapted to show their fitness to fill the positions now held by them, and that in case of failure to pass such examinations to the satisfaction of the board, they shall be dismissed from the service.

SEC. 23. This act shall not apply to the selection of school teachers of the department of public instruction, for which special legislation will be provided.

SEC. 24. The rules to be prepared and certified by the board shall be promulgated by executive order of the Military Governor.

SEC. 25. After the passage of this act no civilian shall be employed in the offices specified in section 5 of this act, except in accordance with its terms: *Provided*, That between the time of its passage and the date when the board herein created shall officially inform the Military Governor and the Commission that it is ready to certify a list of persons eligible to appointment under the provisions of this act for any vacancy occurring, appointments for temporary service may be made to fill vacancies or newly created offices, to continue until such certification is made and such vacancies can be regularly filled under the requirements of this act and the rules of the board adopted in accordance herewith. Persons so temporarily appointed may compete in the examinations held for regular entrance to the classified service.

SEC. 26. In this act whenever a sum of money is mentioned, it shall be understood to refer to the money of the United States.

SEC. 27. Upon the passage of this act and the appointment and organization of the board, it shall be the duty of the head of each office to which this act applies, upon application by the board, to certify to the board a complete list of all the officers and employees engaged therein, together with a full statement of the duties performed by them and the compensation received by them.

SEC. 28. No person shall be admitted to the competitive examinations to be held under this act who are not either—

- (a) Citizens of the United States, or
- (b) Natives of the Philippine Islands, or
- (c) Persons who have, under and by virtue of the treaty of Paris, acquired the political rights of natives of the islands.

SEC. 29. This act shall take effect on its passage, and shall be referred to as the "Civil Service Act."

Enacted, September 19, 1900.

WM. H. TAFT,
President.

UNITED STATES PHILIPPINE COMMISSION,

SECRETARY'S OFFICE,

Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 26th day of September, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSSON, *Secretary.*

[No. 6.]

AN ACT prescribing the order of procedure by the Commission in the enactment of laws.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. In "the making of rules and orders having the force of laws," as provided in the instructions to the Commission, the following procedure shall be adopted, viz:

(a) All such rules and orders as are of a distinctly legislative character shall be termed "acts;"

(b) All acts shall, before the enacting clause, be prefaced by a title stating the purpose and scope of the act;

(c) The enacting clause shall be in the following form, viz: "By the authority of the President of the United States, be it enacted by the United States Philippine Commission, that:"

(d) All acts, when enacted, shall bear the date of enactment, and be attested by the signature of the president and secretary of the Commission;

(e) Every bill proposing an act shall first be presented in executive session, and thereupon receive its first reading. After the first reading, it shall be considered and perfected in committee of the whole until all proposed amendments have been adopted or rejected;

(f) After being perfected in committee of the whole, the bill shall be reported to the Commission in executive session on a subsequent day, and thereupon after being further amended, if necessary, shall be read a second time in its perfected form;

(g) The bill, as amended, shall then, under the directions of the secretary, be translated into Spanish, and printed, and copies thereof, in English or Spanish as may be required, immediately furnished for publication in each daily newspaper published in Manila, together with an informal announcement of the date when the same will be considered in public session;

(h) At the public session for the consideration of the bill, the Commissioner who introduced it shall explain its purpose, scope and provisions as fully as he may deem necessary, and the bill shall be read the third time. Persons present may then be heard upon it, under the resolution heretofore promulgated, and the other Commissioners may comment upon it if they so desire. Unless further amendments are proposed by a member of the Commission, the vote shall then be taken upon the passage of the bill. If further amendments are so proposed, they shall forthwith be acted upon, or postponed for future consideration, as the Commission may decide.

SEC. 2. The order of procedure herein provided shall not be obligatory whenever the Commission shall determine that the public good requires the more speedy enactment of a law. But in such case the act itself shall declare that the public good required its speedy enactment.

SEC. 3. This act shall take effect on its passage.

Enacted, September 26, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 26th day of September, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 7.]

AN ACT for the establishment of a bureau of statistics for the Philippine Islands.

By the authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. There shall be established a bureau of statistics for the Philippine Islands, the central office of which shall be located in the city of Manila. The chief officer of this bureau shall be denominated the

chief statistician. He shall be appointed by the Commission, under the limitations which are applicable to the appointment of the heads of other departments by virtue of section 20 of the civil service act. He shall superintend and direct the collection, compilation, and publication of such statistical information concerning the Philippine Islands as may be required by law, and shall perform his duties under the general supervision of the Military Governor.

SEC. 2. All appointments in the bureau of statistics shall be in accordance with the provisions of the civil service act.

SEC. 3. All information collected by the bureau concerning the affairs of private persons, firms or corporations shall be strictly confidential, and shall not be published or communicated in such a way as to reveal the identity of the persons concerned to any other than the employees of the bureau. The violation of this requirement by the chief statistician, or by any assistant, clerk, special agent, enumerator or other employee of the bureau shall be a misdemeanor, the punishment for which shall be a fine not exceeding five hundred dollars, or imprisonment for a term not exceeding one year, or both fine and imprisonment, in the discretion of the court.

SEC. 4. Any assistant, clerk, special agent, enumerator, or other employee of the bureau who shall communicate to any person not authorized to receive the same any information gained by him in the performance of his duties, shall be guilty of a misdemeanor, and, upon conviction thereof, shall be punished as provided in the preceding section.

SEC. 5. The chief statistician, or any assistant, clerk, special agent, enumerator, or other employee of the bureau, who shall wilfully report or publish false statistical information, shall be guilty of a misdemeanor, and, upon conviction thereof, shall be punished as provided in section 3 of this act.

SEC. 6. All public officers of the Philippine Islands are authorized and required to render to the chief statistician, on his request, regular or special reports on all matters coming to their knowledge in the performance of their official duties, in so far as the information possessed by them or contained in their records relates to a subject under duly authorized investigation, and is not of a confidential nature. The regular reports required of public officials shall, as far as possible, take the form laid down in the statutes of the United States for similar reports to the several statistical bureaus of the Federal Government on the same or cognate subjects, or such forms as shall be prescribed by law. When any of the special reports called for from any office involve a larger amount of labor than can be performed by the regular force of that office without interference with their regular duties, the chief statistician shall delegate an employee or employees of the bureau to assist in compiling such reports.

SEC. 7. Any public officer wilfully refusing to comply with the requirements of the preceding section shall be guilty of a misdemeanor, and, upon conviction thereof, shall be punished as provided in section 3 of this act.

SEC. 8. Every person more than eighteen years of age residing in these islands shall be required, if thereto requested by the chief statistician or his duly authorized representative, to render a true account, to the best of his or her knowledge, of the various items of

information possessed by him or her and required for any authorized statistical investigation; and whosoever shall wilfully fail or refuse to render such a true account shall be guilty of a misdemeanor, and, upon conviction thereof, shall be fined in a sum not exceeding one hundred dollars, or imprisoned for a term not exceeding three months, or by both fine and imprisonment, in the discretion of the court.

SEC. 9. Every president, treasurer, secretary, director, agent, or manager of any corporation or of any establishment of productive industry or commercial organization, whether conducted as a corporate body, limited liability company, or by private persons, from whom answers to any schedules, inquiries, or statistical interrogatories are required as herein provided, who shall, if thereto requested by the chief statistician or any of his duly authorized representatives, wilfully neglect or refuse to give true and complete answers to said authorized inquiries, or shall wilfully give false information, shall be guilty of a misdemeanor, and upon conviction thereof shall be fined in a sum not exceeding five hundred dollars, or imprisonment not exceeding one year, or by both fine and imprisonment, in the discretion of the court.

SEC. 10. The chief statistician may authorize the expenditure of sums necessary for traveling expenses of the officers and employees of the bureau and the incidental expenses essential to the carrying out of this act, including the expenses of printing the necessary forms, schedules, blanks, circulars, envelopes and other necessary items; and for printing, publishing and distributing bulletins and reports of the results of the investigations authorized; and for purchasing or contracting for the use of mechanical or electrical devices for calculating or tabulating: *Provided*, That no mechanical device of this character shall be adopted until after due notice to the public and tests of its merits in competition with other devices for the same purpose which may be offered, unless the same shall have been previously adopted in some department of the Government of the United States.

SEC. 11. The chief statistician shall provide the bureau with a suitable seal, with such device as he may select, and he shall file a description of such seal with the Commission, together with an impression thereof. Such seal shall remain in the custody of the chief statistician and shall be affixed to all commissions, certificates and attestations that may be required from the bureau.

SEC. 12. This act shall take effect on its passage.

Enacted, September 26, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 26th day of September, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 8.]

AN ACT appropriating twenty thousand dollars (\$20,000.00) in payment of small expenses incurred by the War Department of the United States for the Philippine Islands.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The sum of twenty thousand dollars (\$20,000.00) in money of the United States is hereby appropriated for the payment of sundry small expenses incurred in the United States for the benefit of the Military Government of the Philippine Islands by order of the Secretary of War.

SEC. 2. The insular treasurer is hereby authorized and directed to remit by cable to the disbursing clerk of the War Department at Washington the sum herein appropriated, upon the warrant of the Military Governor for the same.

SEC. 3. This act shall take effect upon its passage.

Enacted, September 26, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 3d day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSSON, *Secretary.*

[No. 9.]

AN ACT providing for an allowance in estimating and assessing dutiable goods in case of loss or destruction of the same.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. If upon opening any package of dutiable goods, a deficiency of any article shall, on examination by the inspector, be found, or if any article is found to be totally destroyed, the same shall be certified to the collector, who, if he shall be satisfied that such deficiency has occurred through no fault of the owner, importer, or other person interested in such goods, shall make allowance for the same in estimating and assessing duties.

SEC. 2. This act shall take effect on its passage.

Enacted, October 3, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 3d day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSSON, *Secretary.*

[No. 10.]

AN ACT appropriating fifteen hundred dollars Mexican to be paid to the widow of Salvador de los Reyes, vice-president of Santa Cruz, province of Laguna de Bay.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. Whereas, Salvador de los Reyes, vice-president of Santa Cruz, province of Laguna de Bay, was murdered while in the discharge of his official duties on September 1, 1900, by direct instigation of the insurgent commander Cailles, because of the efficient administration of the civil government of the municipality by the deceased and his loyalty to the United States;

Whereas, he had proven himself reliable and courageous in the discharge of his official duties, and his untimely death leaves his wife and two small children in needy circumstances,

The sum of fifteen hundred dollars Mexican is hereby appropriated out of any money in the insular treasury, not otherwise appropriated, to be paid to the widow of Salvador de los Reyes for the support of herself and her two children.

SEC. 2. The Military Governor is authorized and directed to draw his warrant for the sum stated in the preceding section in favor of the widow of Salvador de los Reyes, and the insular treasurer is directed to pay the same.

SEC. 3. This act shall take effect upon its passage.

Enacted October 3, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 3d day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 11.]

AN ACT appropriating sundry sums to pay the expenses of the department of education incurred prior to the first of September.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The sum of four hundred and fifty-six dollars and twelve cents (\$456.12) in money of the United States is hereby appropriated, out of any money in the insular treasury, not otherwise appropriated, to be paid to the following persons, for supplies furnished or services rendered the department of education:

E. C. McCullough.....	\$47. 89
Bazar de Velasco.....	175. 00
Cunningham, Curtis & Welch	74. 48
Payot, Upham & Co	107. 12
Lucy H. Willis.....	51. 63

SEC. 2. The Military Governor is authorized and directed to draw his warrants in favor of the persons named in the preceding section for the respective sums therein set forth and the insular treasurer is directed to pay the same.

SEC. 3. This act shall take effect on its passage.

Enacted October 3, 1900.

UNITED STATES PHILIPPINE COMMISSION,

SECRETARY'S OFFICE,

Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 3d day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 12.]

AN ACT prescribing the method to be adopted by the insular treasurer in keeping and rendering accounts of his receipts and disbursements.

By the authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The accounts of the insular treasurer shall show the kind of money, whether insular or that of the United States, in which each item of his receipts and disbursements of public funds has been made, and the account upon which the same has been received or disbursed.

SEC. 2. For the purpose of all reports required by law, the insular treasurer shall prepare, on the books of the treasury, tabulated statements, showing the several sources from which revenue has been received and the several purposes for which the same has been disbursed, with three columns of figures, the first column showing the amounts of insular money actually received or disbursed, the second column showing the amounts of United States money so received or disbursed, and the third column showing the aggregate amounts so received or disbursed stated in the money of the United States, which last-named amount shall be ascertained as provided in the next section.

SEC. 3. The items in the third column shall be made by reducing the items in the first column to United States money at the ratio for the quarter established by order of the Military Governor, and adding to the amounts thus obtained the corresponding items in the second column, but the ratio of reduction for the quarter beginning October 1, 1900, and ending January 1, 1901, shall be two dollars of insular money for one dollar of United States money of his receipts and disbursements.

SEC. 4. All reports made by the treasurer shall contain transcripts of the tabulated statements herein prescribed, so as to show the several amounts of all receipts and disbursements in United States money.

SEC. 5. The balance of United States money shown in the third column to be in the treasurer's possession at the close of each quarter shall be carried forward to the account for the new quarter, but for the purposes of the tabulated statements and reports herein prescribed, shall be reduced to its value in United States money at the ratio

established for the new quarter, as herein provided, if that ratio shall be different from the one prevailing during the previous quarter.

SEC. 6. The treasurer shall account for the actual money received and disbursed by him, in the kinds of moneys so received and disbursed, irrespective of its reduced equivalent in United States money, and his accounts shall be audited upon this basis.

SEC. 7. This act shall take effect on its passage.

Enacted October 3, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 3d day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSSON, *Secretary.*

[No. 13.]

AN ACT appropriating three hundred and eighty-seven thousand and sixty-four dollars and thirty-three cents, Mexican, for the payment of sundry expenses incurred for the benefit of the insular government for the month of September, 1900.

By the authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The following sums, in Mexican money, are hereby appropriated, out of any money in the insular treasury not otherwise appropriated, for the payment of current expenses of the insular government for the month of September, 1900, for the purposes and objects hereinafter expressed, namely:

For eighty per cent of the estimated value of the work done on the new Divisoria market, from August 1, 1900, to August 31, 1900, six thousand, seven hundred and twenty dollars.

For last payment on completion of contract of work on Divisoria market, six thousand, seven hundred and twenty dollars.

For deposit of twenty per cent, on payment of the work done, twenty thousand, one hundred and sixty dollars.

For wind-bracing Divisoria market, balance due, three hundred and twenty-five dollars.

Total, thirty-three thousand, nine hundred and twenty-five dollars.

For refitting and equipping the gunboat *Arayat*, as follows:

For construction and repair, twenty-one thousand, three hundred and nine dollars and eighty-five cents.

For steam engineering, ten thousand, nine hundred and seventy-four dollars and seventy cents.

For ordnance, sixty-five dollars and forty-eight cents.

For yards and docks, thirty-one dollars and nineteen cents.

For equipment, two thousand, four hundred and thirty-seven dollars and sixteen cents.

Total, thirty-four thousand, eight hundred and eighteen dollars and thirty-eight cents.

For payment of clerical assistance in the mining bureau, as follows:

One chief clerk and stenographer, two hundred dollars.

One mining engineer and assayer, two hundred dollars.

One interpreter and translator, two hundred dollars.

One record clerk, fifty-five dollars.

One helper for engineer, twenty dollars.

One porter (janitor), ten dollars.

One laborer, ten dollars.

Total, six hundred and ninety-five dollars.

For the purchase of books for the mining bureau, one hundred and seventy-nine dollars and ten cents.

For the salary of Dr. Domingo Santos, sanitary officer at Batangas, from May 14th to July 14th, fifty dollars per month, one hundred and one dollars and sixty-six cents.

For the salary of Dr. Domingo Santos, sanitary officer at Batangas, for two days in August, and for the month of September, fifty-three dollars and sixty-four cents.

Total, one hundred and fifty-five dollars and thirty cents.

For the payment of wages and salaries for the employees under the captain of the port at Aparri, as follows:

Cape Engano light-house:

One chief keeper, pay fifty dollars; allowance thirty dollars, eighty dollars.

One second-class keeper, pay forty-one dollars, allowance fifteen dollars, fifty-six dollars.

One fourth-class keeper, pay twenty-five dollars, allowance fifteen dollars, forty dollars.

One orderly, pay fifteen dollars.

Total for keeping Engano light-house, one hundred and ninety-one dollars.

For Linao light-house:

One first keeper, fifty dollars.

One fourth keeper, twenty-five dollars.

Total for Linao light-house, seventy-five dollars.

Total for captain of the port at Aparri, two hundred and sixty-six dollars.

For payment of additional native police force at Malabon and vicinity, from September 11 to September 30, 1900, as follows:

Three sergeants, at forty dollars per month, eighty dollars and one cent.

Three corporals, at thirty dollars per month, sixty dollars.

Fifty-four privates, at twenty-four dollars per month, eight hundred and sixty-four dollars.

Total for additional Malabon police, one thousand and four dollars and one cent.

For additional amount necessary to meet the cost of disinfectants purchased in America, authorized in original order, two hundred and forty-eight dollars and fifty-four cents.

For expenses of the department of public instruction, not provided for by previous appropriation, for the month of September, as follows:

Salaries of teachers in night school, one principal, at forty-eight dollars, forty-eight dollars.

Three teachers of English, at thirty-six dollars per month, one hundred and eight dollars.

Three teachers of English, at twenty-four dollars per month, seventy-two dollars.

Total addition for teachers in night school, two hundred and twenty-eight dollars.

For wages of English supply teacher, eighty dollars.

Total for department of public instruction, three hundred and eight dollars.

For the chief quartermaster of the United States Army for the Division of the Philippines:

For printing all orders and blanks required in the division, and for the purchase of rubber stamps and such stationery as had not been received from the United States, ten thousand dollars.

For electric lighting and supplies, one thousand dollars.

For the purchase of office furniture, fixtures, hire of interpreters, and payment of claims, four thousand dollars.

For the payment of cablegrams on official business, and hire of telephones, twenty-five thousand dollars.

For cleaning cesspool vaults and earth closets in Manila, five thousand dollars.

For repairs to Santa Mesa Hospital, five hundred and seventy-five dollars.

To complete work on Government building at Sual, two hundred and fifty dollars.

For hire of buildings in Manila for quarters, hospitals, storehouses and offices, thirteen thousand and five hundred dollars.

For repairs of Government buildings and similar miscellaneous items, ten thousand dollars.

For hire of cascoes used as ferries, and water transportation at outlying points, and for hire of authorized vehicles in Manila, five thousand dollars.

For payment of Macabebe scouts, three thousand dollars.

For repair of road from Calamba to dock, five thousand dollars.

For repair of road from Bonang to Cabagao and Santa Rosa, one thousand dollars.

For expenditure of the department of the Visayas, heretofore authorized under general order number thirty-seven as amended, sixty-three thousand, one hundred and sixty-five dollars.

For expenditure of the department of southern Luzon, heretofore authorized under general order number thirty-seven as amended, thirty-five thousand dollars.

For expenditures of the department of northern Luzon, heretofore authorized under general order number thirty-seven as amended, seventy-five thousand dollars.

For repairs to military prison at San Isidro, two thousand, nine hundred and seventy-five dollars.

For expenses at depot quartermaster's, in Manila, for gunboats, pony corral, stable, cold-storage plant, first reserve hospital, printing establishment, purchase of coal and mineral oil, and miscellaneous supplies, fifty-six thousand dollars.

Total appropriation for the use of the chief quartermaster, three hundred and fifteen thousand, four hundred and sixty-five dollars.

SEC. 2. The insular treasurer is hereby authorized and directed to pay the warrants of the military governor for the sums so appropriated.

SEC. 3. This act shall take effect on its passage.

Enacted October 3, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 10th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 14.]

AN ACT providing for the temporary assignment of judges of the courts of the first instance to preside in the trial of actions properly triable in provinces where no courts of the first instance have been established.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. Whenever applications in writing shall be made to the supreme court, representing that the petitioner desires to bring an action in a court of the first instance within one of the provinces of the Philippine Islands in which there is then no court of the first instance, and which action would be properly triable in such court, if existing, and praying that provision may be made for the hearing and determination of the action, the president of the supreme court may, in his discretion, if he is satisfied that no injustice will thereby be done, temporarily assign any judge of a court of first instance to preside in the trial of the proposed action.

SEC. 2. Upon the assignment of a judge in accordance with the provisions of the preceding section, the judge so assigned shall have full authority to hear and determine the action, and all questions arising therein, to the same extent and with the same effect as if there had been established by law a court of first instance of the province in which the action would properly have been triable and he were the permanent judge thereof; and the same rights of appeal shall appertain to the action.

SEC. 3. The action shall be brought and the record thereof made in the regular court of the assigned judge, and process shall issue therefrom to the province in which the case would be properly triable were there a court of first instance established in such province, and the trial may take place either in such province or at the place where the assigned judge regularly under the law holds court as the president of the supreme court, having regard to the convenience of the trial judge and justice to the parties shall order.

SEC. 4. The assignment and order made by the chief justice under the preceding section shall be in writing and spread upon the minutes of the supreme court and upon the records of the court of first instance, the judge of which is so assigned.

SEC. 5. This act shall take effect on its passage.

Enacted October 10, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 10th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 15.]

AN ACT to increase the monthly salaries of the native Filipino public school teachers of Manila and vicinity.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. Until the salaries of all school teachers can be properly adjusted by general law establishing a proper school system in the islands, the monthly salaries of the native Filipino school teachers now teaching in the public schools of the city of Manila and in the suburbs of Pandacan, Pasay, Singalon, and Santa Ana shall be increased thirty-three and one-third (33 $\frac{1}{3}$) per cent over and above their present salaries.

SEC. 2. The increase provided for in the first section of this act shall apply to the salaries to be paid for the month of October, 1900.

SEC. 3. This act shall take effect on its passage.

Enacted October 10, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 10th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSSON, *Secretary.*

[No. 16.]

AN ACT for the reorganization of the forestry bureau of the Philippine Islands.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. Until otherwise provided by law, the employees of the forestry bureau shall be:

(a) An officer in charge, detailed by the Military Governor from the Army of the United States and drawing no salary.

(b) An inspector, at one hundred and fifty (\$150) per month.

(c) A botanist, at one hundred dollars (\$100) per month.

(d) A chief clerk and stenographer, at one hundred dollars (\$100) per month.

(e) A translator, at one hundred dollars (\$100) per month.

(f) A law clerk, at seventy-five dollars (\$75) per month.

(g) A record clerk, at seventy-five (\$75) per month.

SEC. 2. In addition to the above there may be employed in the bureau ten assistant foresters at fifty dollars (\$50) per month, and thirty rangers at twenty-five dollars (\$25) per month, or any less number of each class as the officer in charge of the bureau may in his discretion deem necessary.

SEC. 3. In this act whenever a sum of money is mentioned it shall be understood to refer to the money of the United States.

SEC. 4. This act shall take effect on its passage.

Enacted October 10, 1900.

UNITED STATES PHILIPPINE COMMISSION,
 SECRETARY'S OFFICE,
Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 10th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 17.]

AN ACT for the reorganization of the mining bureau of the Philippine Islands.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. Until otherwise provided by law, the employees of the mining bureau shall be:

(a) An officer in charge, detailed by the Military Governor from the Army of the United States and drawing no salary.

(b) A chief clerk, interpreter and stenographer, at one hundred and twenty-five dollars (\$125) per month.

(c) A mining engineer and assayer, at one hundred and twenty-five dollars (\$125) per month.

(d) A record clerk, at twenty-seven dollars and fifty cents (\$27.50) per month.

(e) An engineer's helper and assistant record clerk, at twenty-five dollars and fifty cents (\$25.50) per month.

(f) A janitor, at seven dollars and fifty cents (\$7.50) per month.

(g) A laborer, at five dollars (\$5) per month.

SEC. 2. In this act whenever a sum of money is mentioned it shall be understood to refer to the money of the United States.

SEC. 3. This act shall take effect on its passage.

Enacted October 10, 1900.

UNITED STATES PHILIPPINE COMMISSION,
 SECRETARY'S OFFICE,
Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 10th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 18.]

AN ACT appropriating sixteen hundred and seventeen dollars and ninety-five cents (\$1,617.95), in money of the United States, to pay expenses incurred and salaries earned, not provided for in the general appropriation bill.

By authority of the President of the United States, be it enacted by the United States Philippine Commission that:

SECTION 1. The sum of one thousand six hundred and seventeen dollars and ninety-five cents (\$1,617.95) in money of the United States is hereby appropriated out of any money in the insular treasury, not otherwise appropriated, to be paid as follows:

To E. W. Vaille, director-general of posts, the sum of nine hundred seventy-two dollars and fifteen cents (\$972.15), expenses incurred by

him in the purchase and maintenance of two horses, harness, and a carriage used from the 12th day of June, 1899, to the 30th day of September, 1900, for official transportation. This appropriation is made on condition that the horses, harness and carriage now used by him in the business of his office belong to the island government and are subject to the control of the proper authorities thereof, and that said Vaille execute an instrument properly evidencing the same.

To Fred W. Atkinson, general superintendent of public instruction, four hundred eighty-nine dollars and twenty cents (\$489.20), salary for the month of September, 1900.

To L. H. Willis, stenographer in the office of the general superintendent of public instruction, eighty-one dollars and sixty cents (\$81.60), salary for the month of September, 1900.

To Charles Rocha, interpreter in the office of the general superintendent of public instruction, the sum of seventy-five dollars (\$75), salary for the month of September, 1900.

SEC. 2. The military governor is authorized and directed to draw his warrants for the foregoing sums of money in favor of the respective persons named, and the insular treasurer is directed to pay the same.

SEC. 3. This act shall take effect on its passage.

Enacted October 10, 1900.

UNITED STATES PHILIPPINE COMMISSION,

SECRETARY'S OFFICE,

Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 10th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSSON, *Secretary.*

[No. 19.]

AN ACT increasing the force of employees in the offices of the collector of customs for the islands, and of the captain of the port at Manila, and increasing the salaries of employees in the offices of the military secretary and of the officer in charge of insurgent records.

By authority of the President of the United States, be it enacted by the United States Philippine Commission that:

SECTION 1. Twenty additional fourth-class inspectors may be employed in the office of the collector of customs of the islands at Manila at a salary of sixty (60) dollars per month each.

SEC. 2. Two building inspectors, in addition to the present force, may be employed in the office of the city engineer of Manila under the provost-marshal-general at salaries of one hundred (100) dollars a month each.

SEC. 3. One additional property clerk may be employed in the office of the captain of the port at Manila at a salary of one hundred (100) dollars per month.

SEC. 4. The salary of the chief clerk and translator in the office of the officer having charge of the insurgent records shall be increased from one thousand (1,000) dollars to fourteen hundred (1,400) a year, and in the same office the salary of the Tagalog translator shall be increased from thirty (30) dollars to fifty (50) dollars per month.

SEC. 5. The salary of the chief clerk of the military secretary's office shall be increased from sixteen hundred (1,600) dollars to eighteen hundred (1,800) dollars a year, and the salary of the assistant chief clerk in the same office shall be increased from one thousand (1,000) dollars to twelve hundred (1,200) dollars a year.

SEC. 6. In this act whenever a sum of money is mentioned it shall be understood to mean money of the United States.

SEC. 7. This act shall take effect on its passage.

Enacted October 10, 1900.

UNITED STATES PHILIPPINE COMMISSION,

SECRETARY'S OFFICE,

Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 10th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSSON, *Secretary.*

[No. 20.]

AN ACT to reorganize the office of the auditor of the islands.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. Until further provision shall be made by law, the office of the auditor of the islands shall be conducted by the following officers and employees at the following salaries stated in money of the United States:

1. The auditor for the islands at an annual salary of four thousand (\$4,000.00) dollars.

2. One first assistant auditor at an annual salary of three thousand (\$3,000.00) dollars.

3. One second assistant auditor at an annual salary of two thousand seven hundred and fifty (\$2,750.00) dollars.

4. One first-class clerk and statistician at an annual salary of eight hundred (\$1,800.00) dollars.

5. One chief bookkeeper at an annual salary of fifteen hundred (\$1,500.00) dollars.

6. Three examiners at annual salaries of fourteen hundred (\$1,400.00) dollars each.

7. One assistant bookkeeper at an annual salary of twelve hundred (\$1,200.00) dollars.

8. Three stenographers at annual salaries of twelve hundred (\$1,200.00) dollars each.

9. Three clerks at annual salaries of twelve hundred (\$1,200.00) dollars each.

10. Three clerks at annual salaries of six hundred (\$600.00) dollars each.

SEC. 2. In addition to other duties required by law the auditor shall for statistical and other purposes provide and keep books and records, showing in detail and by tabular analysis the sources of the revenues of the military government of the islands and the objects to which the same have been appropriated and disbursed as taken from the vouchers

on file in his office and shall make monthly, quarterly and annual reports of the same to the commission for its guidance in making future appropriations.

SEC. 3. This act shall take effect on its passage.

Enacted October 10, 1900.

UNITED STATES PHILIPPINE COMMISSION,
 SECRETARY'S OFFICE,
Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 10th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSSON, *Secretary.*

[No. 21.]

AN ACT appropriating seven thousand five hundred dollars (\$7,500.00) in the money of the United States for constructing an additional crematory in the city of Manila.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The sum of seven thousand five hundred dollars (\$7,500.00) in the money of the United States is hereby appropriated, out of any money not otherwise appropriated in the treasury of the Philippine Islands, for the purpose of constructing an additional crematory in the city of Manila for the consumption of garbage, night soil and other offensive matter.

SEC. 2. The crematory herein provided for shall be constructed under the direction of the Military Governor upon any public lands in the city of Manila, available for the purpose, and pursuant to such plans and specifications as he may deem best.

SEC. 3. The insular treasurer is hereby authorized and directed to pay the warrants of the Military Governor for the sum so appropriated.

SEC. 4. This act shall take effect on its passage.

Enacted October 10, 1900.

UNITED STATES PHILIPPINE COMMISSION,
 SECRETARY'S OFFICE,
Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 15th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSSON, *Secretary.*

[No. 22.]

AN ACT appropriating one million dollars (\$1,000,000.00) in the money of the United States for improving the port of Manila.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The sum of one million dollars (\$1,000,000.00) in the money of the United States is hereby appropriated to be paid out of

any money in the insular treasury, not otherwise appropriated, to be immediately available and to be expended by the military governor, through the chief engineer, United States Army, for the Division of the Philippine Islands, for continuing the improvements of the harbor of Manila, including the outer harbor and the Pasig River from the Bridge of Spain to the mouth, in general accordance with the project adopted and partly carried out by the Spanish Government, the plans and specifications for which are on file in the office of the chief engineer.

SEC. 2. The appropriation shall be first used to finish the breakwaters already partially built, and to dredge within them so that all shipping, of whatever draft, frequenting this port may be able to lie under their protection, to clear and dredge the present canal connecting the projected harbor with the Pasig River; and to keep dredged the Pasig River below the Bridge of Spain, and the bar at the mouth of the river.

SEC. 3. After the work provided for in section 2 shall have proceeded so far that connection of the new port by a bridge with the business portion of Manila shall be needed, the chief engineer, under the direction of the military governor, shall construct a suitable railroad, wagon and passenger drawbridge across the Pasig River, near its mouth, so as to interfere as little as possible with navigation. The chief engineer shall acquire, either by purchase or by appropriation in the manner provided by law, the necessary land, not owned by the government of these islands, for approaches and piers of the bridge. No purchase of lands herein directed shall be concluded until the title thereto shall be examined by the fiscal of the supreme court of the Philippine Islands and be declared good and sufficient, and the terms of the purchase shall be approved by the Military Governor.

SEC. 4. Such minor structures, permanent or temporary and such inside quay walls may be constructed or continued, where partially constructed, as will, as far as practicable, give relief to the present overcrowded condition of the port of Manila and which do not unduly interfere with, delay or injure the final improvements contemplated by this act.

SEC. 5. The work herein provided for shall, as far as practicable, be done and the necessary materials purchased by contract or contracts with private individuals or corporations. Bids for doing the same shall be advertised for and the contracts for doing the same shall be awarded to the lowest responsible bidder or bidders except as hereinafter provided.

When the chief engineer shall decide that public exigency requires the immediate delivery of any article or performance of any service the article or service required may be procured by open purchase or hire at the places and in the manner in which articles are usually bought and sold or such services engaged between individuals, provided the price of such article or service does not in any single instance exceed five thousand dollars (\$5,000.00) Mexican.

The chief engineer may advertise and contract for the doing of the work prescribed by this act either as a whole or in parts, as he may deem most advantageous to the public interests.

In making such advertisements or contracts he shall observe the following general rules and regulations, viz:

(a) Advertisement shall be made by him in some newspaper or newspapers of general circulation in the cities of New York, Chicago, and San Francisco in the United States, in Manila and in such other places

as he may deem advantageous, for the period of thirty days, specifying therein the nature and character of the work to be let, stating that the plans and specifications for the same can be examined at the office of the chief engineer in Manila, and, in his discretion, at other designated points, soliciting bids for doing the same or so much as shall be specified in the advertisement and fixing the time or places when and where the bids shall be opened: Provided That whenever the chief engineer shall advertise for a minor part of said work which will not involve a cost of more than fifty thousand dollars, he shall not be required to make such advertisements in the United States, if, in his judgment, so doing would be productive of unnecessary expense or delay.

(b) At the time and place or places fixed in the advertisement, all bids for doing the work or the part advertised to be done, shall be opened by the chief engineer, who shall award the contract for doing the same to the lowest responsible bidder, provided the chief engineer deems the bid reasonable.

(c) If the chief engineer considers the lowest responsible bid to be excessive, he is hereby authorized to reject the same and he may, in the same manner, again advertise, one or more times, for new bids and open the same and award the contract as in the first instance to the lowest responsible bidder, if in his judgment the same is reasonable and if not he shall reject the same, provided that after once advertising without obtaining a satisfactory bid, the chief engineer, if he considers it more economical and advantageous to the public interests, shall report the fact to the Military Governor, who shall, if he considers further advertising undesirable, order the work to be done directly by the chief engineer, under such rules as the military governor may establish for the purchase of materials, employment of labor and other details.

(d) The chief engineer shall furnish, on application, to any person desiring it, all information in regard to the nature and character of the work advertised to be let and shall permit the examination of the plans and specifications and in general shall furnish any person desirous to bid upon the work, such information as will enable him to bid understandingly.

(e) No person shall be informed directly or indirectly by the chief engineer or his subordinates, of the name of any bidder or one intending to bid or of any one to whom any information has been given.

(f) Bids shall be prepared in duplicate or triplicate, if required, in strict accordance with the requirements of the advertisement and specifications, and shall refer to the advertisement and to the plans or specifications. Each bid shall give the place of residence and post-office address of the bidder and shall be signed by him with his usual signature in full.

(g) A bid by a person who affixes to his signature the word "President," "Secretary" or "Agent" or other designation without disclosing his principal, shall be considered as the bid of the individual; a bid by a corporation shall be signed in the name of the corporation, followed by the signature of the president, secretary or other person authorized to bind it in the matter, who shall file evidence of his authority to do so; a bid by a firm shall be signed in the firm's name, either by a member thereof or an agent, who shall also state the names of the members thereof. If an agent signs, he shall file evidence of his authority to bind the firm.

(h) In all bids, numbers and prices shall be written in words as well as expressed in figures. It will be sufficient if specifications are referred to and are declared to form a part of the bid.

(i) Erasures or interlineations shall be explained by the bidder in the bid over his signature.

(j) A guaranty, signed by two responsible persons, that such bidder, if the work be awarded to him, will enter into contract and give bond for the performance of such work and that upon failure of the bidder to do so after ten days' notice of the acceptance of his bid, the guaranties shall be bound for the increased amount of any contract with another party, entered into by the chief engineer for the doing of such work, shall be required to accompany such bid, whenever, in the opinion of the chief engineer, it is necessary to protect the public interests, and when so required, no bid, unaccompanied by a guaranty, made in the manner and form as directed in the advertisement, shall be considered.

(k) The guaranty shall be in duplicate or in triplicate if required by the chief engineer and shall be made out with the necessary justification in accordance with blank forms furnished by him. The guarantors must severally justify in double the amount of penalty of the guaranty. The affidavit of justification may be taken before any person authorized by the laws of the United States or the Philippine Islands to administer an oath. The justification will be followed by the certificate of a judge or clerk of a United States court, a United States commissioner or by a judge or clerk of any court of record in the Philippine Islands, with the seal of the court attached, that the guarantors are known to him and to the best of his knowledge and belief each is worth, over and above debts and liabilities, the sum stated in the guaranty. If necessary separate certificates may be furnished to each guarantor.

(l) Bids, with their guaranties, shall be securely sealed in suitable envelopes, indorsed and addressed as required in the advertisement, and must be in the possession of the officer addressed before the hour appointed for the opening. No responsibility shall attach to an officer for the premature opening of any bid not so indorsed as clearly to show its character.

(m) Whenever the chief engineer awards any contract for doing any work herein provided for, he shall reduce it to writing in due form, it shall contain all provisions necessary to secure proper performance of the work and shall be signed by him and the person to whom the contract is awarded, and acknowledged by the latter either before a judge or clerk of a United States Court, a United States Commissioner, or a judge or clerk of any court of record in the Philippine Islands, who shall in due form certify that such acknowledgment was made before him, under the seal of such court or office,

(n) Any contract herein provided for shall be made and executed in triplicate. One copy shall be retained by the chief engineer, one shall be filed with the Military Governor, and the third shall be retained by the other contracting party.

(o) Bond or bonds for the faithful performance of any contract so entered into by the chief engineer as hereinbefore provided, shall be given by the person to whom the contract is awarded, with two good and sufficient sureties, where the sureties are individuals, in the penal

sum of not less than one-tenth nor more than the full contract price of the work, and conditioned for the faithful performance of the contract according to its tenor and effect, which bond or bonds shall be executed and acknowledged and the sureties justified as provided in subsection "k" hereof.

(p) Any company duly incorporated under the laws of the United States or any State of the United States, authorized to become surety on bonds under the laws of the United States and the rules and regulations of the War Department, may be accepted as surety.

(q) Individuals offering themselves as sureties shall not be accepted unless they shall be citizens of the United States or residents of the Philippine Islands owing allegiance to the United States who can justify as required in subsection "o," or subjects or citizens of other governments, residents in the Philippine Islands, having sufficient property therein subject to execution to meet the obligation of the bond. No contract or bond shall be binding on the Government until approved by the Military Governor.

(r) Transfers of contracts or of interest in contracts are forbidden.

(s) All contracts to be made under this act shall contain a provision by which there shall be retained from all partial payments at least ten per cent of the amount due until the acceptance of the work under contract and the final payment therefor, as additional security for the performance of the contract.

SEC. 6. The chief engineer is authorized and directed, so soon as he can do so without interfering with the work above provided to be done, to revise the Spanish plans and specifications and recommend to the Commission, through the Military Governor, such amendments and modifications thereof as, in his judgment, would be advisable.

SEC. 7. The chief engineer shall make to the Military Governor detailed monthly reports of the progress of the work directed hereunder, containing a statement of expenditures made during the month, together with suggestions of further legislation, if he thinks any to be necessary to accomplish the purposes of this act. The Military Governor shall transmit the chief engineer's reports to the commission with such recommendations and comments as he shall deem proper. The reports shall be filed in the office of the secretary of the Commission and shall be open to public inspection.

SEC. 8. The Military Governor is authorized to draw warrants for the amount herein provided, and the insular treasurer is directed to pay the same.

SEC. 9. This act shall take effect on its passage.

Enacted, October 15, 1900,

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 15th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 23.]

AN ACT appropriating two hundred and eighteen thousand three hundred and ninety-six dollars and twenty-five cents (\$218,396.25) in Mexican money, and three hundred and sixty-four thousand five hundred and ninety-two dollars and twenty-four cents (\$364,592.24) in United States money, for the payment of sundry expenses incurred for the benefit of the insular government for the month of October, 1900.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The following sums, in Mexican money, are appropriated, out of any money in the insular treasury not otherwise appropriated, for the payment of current expenses of the insular government for the month of October, 1900, for the purposes and objects hereinafter expressed, namely:

For the chief quartermaster of the United States Army for the Division of the Philippines:

For electric lighting and supplies heretofore authorized, one thousand dollars.

For repair of hospital at Lilmanan, three hundred dollars.

For repairs of road from San Quintin to San Nicolas, five hundred dollars.

For disbursement in office of chief quartermaster, in payment of carriage hire and cascoes used as ferries at Parañaque, five hundred dollars.

For expenditure by officers in Manila and in the departments, for authorized purchases and hire of authorized labor and transportation and rent of buildings, as provided in General Order No. 93, as follows:

For the department of northern Luzon, thirty thousand dollars.

For the department of southern Luzon, twenty-five thousand dollars.

For the department of the Visayas, sixty-five thousand dollars.

For the department of Mindanao and Jolo, twenty-five thousand dollars.

To meet other requisitions, seventeen thousand, six hundred and sixteen dollars.

To meet miscellaneous requisitions during the month, ten thousand dollars.

Total of Mexican money for the chief quartermaster, one hundred and seventy-four thousand, nine hundred and sixteen dollars.

For the chief signal officer:

For purchases and services in connection with the construction and maintenance of telegraph, telephone and cable lines, two thousand, five hundred dollars.

For the office of the provost-marshal-general:

For clothing for native police, three thousand, nine hundred and twenty dollars.

For streets, parks, fire and sanitation, and water supply, four thousand, six hundred and thirty dollars.

For refunding to the municipality of Malabon certain license fees accruing after July 1, 1900, thirty-nine dollars and fifty cents.

Total of Mexican money for the provost-marshal-general, eight thousand, five hundred and eighty-nine dollars and fifty cents.

For the forestry bureau:

For salaries of officials authorized for October, six hundred and fifty dollars.

Traveling and incidental expenses for September, one hundred dollars.

Traveling and incidental expenses for October, one hundred dollars.

Total of Mexican money for the forestry bureau, eight hundred and fifty dollars.

For the office of the provost-marshal of Cavite:

For salaries of interpreter, translator, clerk, and janitor, one hundred and forty dollars.

For new bid on desk, twenty dollars.

Total of Mexican money for the provost-marshal of Cavite, one hundred and sixty dollars.

For the office of the captain of the port at Iloilo:

For authorized salaries and office expenses, one thousand and thirty dollars.

For authorized salaries and expenses of light-houses at Iloilo, Siete Pecados, Calabasas, Gigantes, Luzaran, Marigonigo, six hundred and thirty-five dollars.

For authorized salaries on the government tug "Nesan," seven hundred dollars.

For authorized salaries for water-front police, four hundred and twenty dollars.

For authorized salaries on government launch "Vicenta," two hundred and thirty-two dollars and fifty cents.

For authorized salaries on river dredger "Rosario," three hundred and seventy-five dollars.

For engine-room supplies, one hundred and fifty dollars.

For removing deck house and placing two tanks on tug "Nesan," two hundred dollars.

For regular authorized labor, five hundred and sixty-two dollars and fifty cents.

For labor on quay wall and front, one hundred and sixty-two dollars and fifty cents.

For stone and cement for quay wall and front, three hundred dollars.

Total of Mexican money for the captain of the port at Iloilo, four thousand, seven hundred and sixty-seven dollars and fifty cents.

For the office of the captain of the port of Cebu:

For authorized salaries and wages, six hundred and fifteen dollars.

For the office of the captain of the port of Aparri:

For supplies and necessary material, one hundred dollars and thirty-five cents.

For authorized salaries at Cape Engaño light-house, one hundred and ninety-one dollars.

For authorized salaries for Linao light-house, seventy-five dollars.

Total of Mexican money for the captain of the port at Aparri, three hundred and sixty-six dollars and thirty-five cents.

For the office of the captain of the port at Dagupan:

For authorized salaries, two hundred and twenty-five dollars.

For the office of the captain of the port at Capiz:

For incidental expenses, eight dollars and forty cents.

For salaries, seventy-six dollars.

Total of Mexican money for the captain of the port at Capiz, eighty-four dollars and forty cents.

For the office of the captain of the port at Batangas:

For authorized salaries, forty-five dollars.

For the office of the captain of the port of Dapitor:

For rent of one boarding boat, five dollars.

For authorized salaries, thirty-two dollars and fifty cents.

Total of Mexican money for the captain of the port of Dapitor, thirty-seven dollars and fifty cents.

For the major-general commanding and military governor:

For payment in full satisfaction and liquidation of the claim of the Government of Spain, for reimbursement for cattle, saddles, carts, harness, etc., delivered by the Spanish authorities to the United States military authorities on the 13th and 14th of August, 1898, being the sum agreed upon for that purpose by John A. Hull, judge-advocate, United States Volunteers, and the Spanish board of liquidation, twenty-five thousand dollars.

For maintenance of public schools at San Pedro Macati, in the department of southern Luzon, from the first day of October, 1900, to the first day of January, 1901, being eighty dollars per month, two hundred and forty dollars.

Total appropriation of Mexican money, two hundred and eighteen thousand, three hundred and ninety-six dollars and twenty-five cents.

SEC. 2. The following sums in United States money are hereby appropriated, out of any money in the insular treasury, not otherwise appropriated, for the payment of current expenses of the insular government for the month of October, 1900, for the purpose and objects hereinafter expressed, namely:

For the chief quartermaster of the United States Army, for the division of the Philippines:

For printing and stationery, five thousand dollars.

For the purchase of office furniture and fixtures, and hire of interpreters, two thousand dollars.

For the payment of cablegrams, telegrams and telephones, twelve thousand, five hundred dollars.

For cleaning of cesspools, vaults, and closets in Manila, two thousand, five hundred dollars.

For rents and repairs to buildings in Manila, fifteen thousand, five hundred and forty-two dollars.

For funds for the department of northern Luzon, twenty thousand dollars.

For funds for the department of southern Luzon, five thousand dollars.

For funds to meet other authorized requisitions, five thousand dollars.

(The last three items being in accordance with General Order No. 93.)

For funds for the depot quartermaster, Manila, for expenses of Navy gunboats, pony corral, stable, cold storage plant, first reserve hospital, purchase of coal and oil, twenty-eight thousand dollars.

For funds to meet miscellaneous requisitions during the month, seventeen thousand dollars.

Total of United States money for the chief quartermaster, one hundred and twelve thousand, five hundred and forty-two dollars.

For the office of the disbursing quartermaster, civil bureau:

For authorized salaries for the court of first instance at Ilocos Sur, four hundred and seventy-two dollars and fifty cents.

For authorized salaries for the court of justice at Vigan, Ilocos Sur, ninety-seven dollars.

For authorized salaries for the court of first instance at Dagupan, three hundred and seventy-two dollars and fifty cents.

For authorized salaries for the court of justice at Dagupan, ninety-seven dollars.

For authorized salaries for the court of first instance at Tueguegarao, three hundred and sixty-five dollars and fifty cents.

For authorized salaries for the court of justice at Tueguegarao, ninety-seven dollars.

For authorized salaries for the court of first instance at Bacalor, three hundred and sixty-five dollars and fifty cents.

For authorized salaries for the court of justice at Bacalor, ninety-seven dollars.

For authorized salaries for the court of first instance at Iloilo, three hundred and sixty-five dollars and fifty cents.

For authorized salaries for the court of justice at Iloilo, ninety-seven dollars.

For authorized salaries for the court of first instance at Cebu, three hundred and sixty-five dollars and fifty cents.

For authorized salaries for the court of justice at Cebu, ninety-seven dollars.

For authorized salaries for the court of first instance at Cavite, two hundred and seventy-seven dollars and seventy-five cents.

For authorized salaries for the court of justice at Cavite, seventy-five dollars.

For authorized salaries for the court of first instance at San Isidro, three hundred and one dollars and seventy-five cents.

For authorized salaries for the court of justice at San Isidro, seventy-five dollars.

For authorized salaries for the court of first instance at Laoag, three hundred and one dollars and seventy-five cents.

For authorized salaries for the court of justice at Laoag, seventy-five dollars.

For authorized salaries for the court of first instance at Balanga, two hundred and sixty dollars and twenty-five cents.

For authorized salaries for the court of justice at Balanga, seventy-five dollars.

For pay of civil employees in offices of board of officers on claims, chief quartermaster, judge-advocate, military secretary, officer in charge of insurgent records, supreme court, inspector-general, as authorized, one thousand, three hundred and forty-four dollars.

For pay of laborers, janitors, and for towels, two hundred and twenty-eight dollars and ninety-seven cents.

For payment of claims presented by the board of officers on claims, five thousand dollars.

For supplies for issue and miscellaneous expenses, ten thousand dollars.

For balance of stationery bill dated March 5, 1900, on authority granted April 20, 1900, fifteen thousand, five hundred and six dollars and seventy-four cents.

For rents and repairs, one thousand, two hundred and ten dollars.

For purchase of road tools for provost-marshal-general, authorized August 20, 1900, two thousand, three hundred and forty-two dollars and fifty cents.

For pay of civil employees in office of disbursing quartermaster, four hundred and eighty-nine dollars and seventeen cents.

For pay of civil employees in office of judge-advocate, three hundred dollars.

For pay of civil employees in office of board of officers on claims, one hundred dollars.

For pay of civil employees in office of adjutant-general, seven hundred and seventy-six dollars and sixty-seven cents.

For pay of civil employees in office of military governor, one thousand and sixteen dollars and sixty-six cents.

For pay of civil employees in office of officer in charge of insurgent records, one hundred and fifty-eight dollars and thirty-three cents.

For pay of civil employees in the supreme court, seven hundred and ninety-one dollars and sixty-seven cents.

For pay of civil employees in the office of inspector-general, one hundred and ninety-one dollars and sixty-seven cents.

For payment of salaries, claims, and miscellaneous bills, impossible to itemize, one thousand dollars.

Total of United States money for the disbursing quartermaster, civil bureaus, forty-four thousand, seven hundred and eighty-six dollars and eighty-eight cents.

For medical supply depot:

For payment of twenty-five Chinese coolies, under authority granted July 30, 1900, three hundred and ten dollars.

For the chief ordnance officer:

For authorized salaries and wages, gravel purchased for repairing roads inside arsenal, for hard wood for flagstaff at depot, galvanized-iron roofing for arsenal buildings, four hundred and sixty-three dollars and seventy cents.

For the chief signal officer:

For purchases and wages in construction and maintenance of telephone, telegraph and cable lines, one thousand, five hundred and forty-seven dollars.

For the provost-marshal-general:

For the department of public health:

For maintenance of patients, payment of wages, salaries, and for supplies, San Lazaro hospital, six hundred and twenty dollars.

For extra hose and additional apparatus for odorless excavator, ordered on April 21, by the Military Governor, one thousand, three hundred and ninety-eight dollars and seventy-five cents.

Total for the department of public health, two thousand and eighteen dollars and seventy-five cents.

For the department of water supply:

For salaries, maintenance, and office expenses, one thousand, nine hundred and forty-six dollars.

For the department of city public works:

For salaries, wages, office expenses, expenditure on bridge of Spain, Santolan road, and Luneta sea wall, three thousand, five hundred and ninety dollars.

For the department of cemeteries:

For wages, rent, and burial of paupers, supplies, advertising, and incidental expenses, three hundred and sixty dollars and fifty cents.

For the department of native police:

For payment of native police, interpreters, medical supplies, and contingent fund, eleven thousand and eighty-two dollars and fifty cents.

For the department of city schools:

For salaries of teachers of English, and in primary schools, and girls' municipal school, and in high school, and in Ateneo, and porters for the same, three thousand three hundred and fourteen dollars and thirty-three and one-half cents.

For salaries in nautical school, three hundred and thirty-five dollars and eighty-three cents.

For salaries in superintendent's office, three hundred and thirty-five dollars.

For carromatta hire, seventy-five dollars.

For school supplies, two hundred and thirty-five dollars.

For new furniture for schools, two hundred and fifty dollars.

For authorized salaries for teachers in night schools, one hundred and thirty-three dollars.

For additional teachers in night schools, one hundred and thirty-three dollars.

For increase in English teaching force, one hundred and eighty dollars.

For salaries in proposed new municipal schools, one hundred and ninety dollars.

Total of United States money for the department of city schools, five thousand one hundred and eighty-one dollars and sixteen and one-half cents.

For the department of municipal records:

For salaries of judges in the supreme court, one thousand five hundred and twenty dollars and eighty-two cents.

For salaries in the attorney-general's department, one thousand three hundred and six dollars and sixty-two cents.

For salaries and allowances in civil branches, one hundred and seventy-five dollars and thirty-four cents.

For salaries and allowance in criminal branch, three hundred and thirty dollars and thirty-four cents.

For salaries and allowance in the general offices, four hundred and seventy-eight dollars and eighty-two cents.

For salaries and allowance in the medico-legal department, one hundred and fifty dollars.

For salaries in the court of first instance in Binondo, two hundred and twenty-nine dollars and fifty cents.

For salaries in the court of first instance in Tondo, two hundred and twenty-nine dollars and fifty cents.

For salaries in the court of first instance in Quiapo, two hundred and twenty-nine dollars and fifty cents.

For salaries in the court of first instance in Intramuros, two hundred and seventy-one dollars and seventeen cents.

For salaries in the superior provost court, one hundred and thirty-seven dollars and fifty cents.

For salaries in the inferior provost court, eighty-seven dollars and fifty cents.

For salaries in the office of collector of taxes, one hundred and thirty dollars.

For salaries, stationery and contingent fund in the office of the department of municipal records, two hundred and fifty-five dollars.

For salaries in department of prison records, seventy-five dollars.

For one clerk, department of receipts and disbursements, one hundred dollars.

Total of United States money for the department of municipal records, five thousand, seven hundred and six dollars and sixty-one cents.

For the department of illumination and telephones:

For maintaining of street and harbor lights, two thousand nine hundred and ninety-six dollars and fifty cents.

In public buildings, general officers' residences, police station, public markets, Carcel de Bilibid, five hundred and eleven dollars and ten cents.

For rental of telephones, one hundred and thirty-two dollars and fifty cents.

For new expenses in this department, eighty-six dollars and forty cents.

Total of United States money for the department of illumination and telephones, three thousand, seven hundred and twenty-six dollars and fifty cents.

For the department of licenses and municipal revenue:

For salaries and disbursements in the department of licenses, slaughterhouse, markets, and incidental expenses, one thousand, eight hundred and forty-two dollars.

For the department of secret service:

For the payment of agents, interpreters, driver, transportation, clerical assistance and information, six hundred and thirty-five dollars.

For the department of prisons:

For the presidio at Manila:

For subsistence, light, salaries, supplies, transportation, hospital, and repairs, two thousand, eight hundred and thirteen dollars and twenty-five cents.

For the carcel publica:

For salaries, light, subsistence, supplies and repairs, one thousand, nine hundred and forty-one dollars and seventeen cents.

For bilibid:

For material and repairs, twenty-five dollars.

Total for department of prisons, four thousand, seven hundred and seventy-nine dollars and forty-two cents.

For the department of quartermaster:

For rent of barracks, buildings for civil police and board of health, schoolhouses, observatory, markets, for expenses of city morgue, and miscellaneous expenses and necessary new expenses, eight thousand, six hundred and eight dollars and thirty-one cents.

For the department of the board of health:

For payment of wages and salaries, for apparatus and general expenses, six thousand, two hundred and forty-four dollars and thirty-five cents.

For the assistant adjutant-general's office:

For salaries of interpreters and clerks, for the purchase of three typewriters, for reimbursements for damages of a house on Calle San José, Ermita, per order of court, for support of orphans at Sta. Ysabel College, and political prisoners' meals, for printing, stationery, advertising and contingent expenses, two thousand and twenty-nine dollars and forty-five cents.

For the department of inspection:

For physician to prisoners of war at Fort Santiago, for subsistence and treatment of prisoners and others at San Juan de Dios Hospital,

and for subsistence and treatment of indigent and insane natives and Spaniards at Hospitio de San José, two thousand, five hundred dollars.

For the department of streets, sanitation, etc.:

For employees in fire, street and sanitation work, seven thousand two hundred and fifty-three dollars.

For employees and carts for city parks and paseos, one thousand, five hundred and twenty-two dollars and sixty cents.

For cleaning matadero and city markets, three hundred and twenty-one dollars and thirty-five cents.

For cleaning streets, disposing of garbage, etc., four thousand and forty-six dollars.

For wages to crew of launches and stone scows, one hundred and twenty-six dollars and twenty-five cents.

For road material, hire of carts for the same, constructing new luneta, forage and shoeing for horses, continuation of opening, cleaning, and repairing drains and sewers; for material, expenses, and maintenance and repair of tug, garbage scows, and bancas; material for fire station, street cleaning, and sanitation; additional sanitary inspector, superintendent of parks; increase of salary of chief street and sanitary inspector, thirteen thousand one hundred and nineteen dollars and sixty-seven cents.

Total of United States money for the department of streets, sanitation, etc., twenty-six thousand, three hundred and eighty-eight dollars and eighty-seven cents.

For department of cemeteries:

For cleaning and painting Paco cemetery, two hundred dollars.

Total of United States money for the provost-marshal-general on original requisitions, eighty-six thousand, eight hundred and thirty-nine dollars and forty-three cents.

Also for the provost-marshal-general, for the purchase of one hundred and thirty-six wheel mules, eighteen lead mules, thirty-five sanitary dump carts, twenty escort wagons, sixty-one "S. S." wheel wagon harness, eighteen "S. S." lead wagon harness, eighty sets of cart harness, as per special recommendation of the Military Governor, dated October 8, 1900, thirty-three thousand, two hundred and seventy dollars.

Grand total of United States money for the provost-marshal-general, one hundred and twenty thousand one hundred and nine dollars and forty-three cents.

For the general superintendent of education:

For the purchase of maps and globes, two thousand dollars.

For bills incurred by the Military Governor prior to September 1, 1900, for schoolbooks, to Ginn & Co., and American Book Co., thirty thousand and ninety-one dollars and fifty cents.

For salaries of the general superintendent, chief clerk, property clerk, stenographer, interpreter, janitors and packing, English teachers, one thousand, nine hundred and nine dollars and ninety-nine cents.

For English instruction in the schools outside of Manila not now provided with such instruction, two thousand dollars.

Total for the general superintendent of education, thirty-six thousand and one dollars and forty-nine cents.

For the collector of customs:

For regular supplies, two thousand, seven hundred and fifty dollars.

For incidental expenses, one hundred and two dollars and thirty-seven and one-half cents.

For rents and repairs to buildings, two hundred and thirty dollars and fifty cents.

For transportation, one hundred and eighty-nine dollars.

For salaries and wages, three thousand, six hundred and eighty-nine dollars.

For salaries, eight thousand, one hundred and fifty dollars.

For miscellaneous expense, seven hundred and seventy dollars and fifty cents.

For refunds, three hundred and twenty-four dollars and fifty-two cents.

For repair of old godowns, one thousand dollars.

For extra inspector hire at the port of Cebu, for the month of September, at one hundred dollars a month, one hundred dollars.

For extra inspector hire at the port of Cebu, for the month of October, at one hundred dollars a month, one hundred dollars.

Total of United States money for the collector of customs, seventeen thousand, four hundred and five dollars and ninety cents.

For the collector of internal revenue:

For deficiency estimate for September, one thousand, six hundred and thirty dollars and fifty-five cents.

For regular supplies, two hundred and forty-six dollars and eighty-eight cents.

For incidental expenses, eighteen dollars and ninety-three cents.

For rents and repairs, two hundred and fifty-two dollars.

For miscellaneous disbursements, forty-two dollars and five cents.

For salaries and wages, three thousand, two hundred and four dollars and forty-one cents.

For tax refunds, two hundred and fifteen dollars and ninety-four cents.

For transportation, thirty-one dollars and sixty-two cents.

Total of United States money for the collector of internal revenue, five thousand, six hundred and forty-two dollars and thirty-eight cents.

For the auditor for the islands:

For salaries and wages, two thousand, four hundred and ninety-two dollars and fifty cents.

For printing, seven hundred and fifty dollars.

Total of United States money for the auditor of the islands, three thousand, two hundred and forty-two dollars and fifty cents.

For the office of the treasurer:

For salaries and wages, three hundred and twenty-seven dollars and ninety-two cents.

For the office of patents, copyrights, and trade-marks:

For clerk hire, fifty dollars.

For the forestry bureau:

For authorized salaries and wages, eight hundred and forty-five dollars and twenty-five cents.

For incidental expenses for September, fifty dollars.

For incidental expenses for October, one hundred dollars.

Total of United States money for the forestry bureau, nine hundred and ninety-five dollars and twenty-five cents.

For the mining bureau:

For authorized salaries and wages, three hundred and fifty-two dollars and fifty cents.

For post-office box rent, four dollars.

Total of United States money for the mining bureau, three hundred and fifty-six dollars and fifty cents.

For the provost-marshal at Cavite:

For subsistence for military prisoners, three hundred and forty-eight dollars and seventy-five cents.

For repairs, nine dollars and forty-four cents.

Total of United States money for the provost-marshal at Cavite, three hundred and fifty-eight dollars and nineteen cents.

For the director-general of posts:

For supplies, furniture, transit charges, stamps, rent, and repairs, one thousand, six hundred and twenty dollars and twenty-three cents.

For transportation, two hundred dollars.

For salaries, eight thousand, nine hundred and thirty dollars and eighty-seven cents.

For miscellaneous expenses, fifteen dollars.

For payment of outgoing foreign mails, for quarter ending September 30, 1900, seven hundred and fifty dollars.

Total of United States money for the director-general of posts, eleven thousand, five hundred and sixteen dollars and ten cents.

For the captain of the port at Manila:

For office supplies, advertising, repairs; for light-house and signal stations, machine shops; public works and floating property, branch hydrographic office; office of launches and machine shop mechanical departments, three thousand dollars.

For salaries of office employees, one thousand and eighty-seven dollars and fifty cents.

Wages of crews for launches, four hundred and thirty-five dollars and fifty cents.

Disbursements for light-houses and signal stations, one thousand dollars.

Labor in machine shops, one thousand and sixty-four dollars and fifty-four cents.

Dredging and clearing channel, dry dock, etc., one thousand, one hundred and twenty-five dollars.

Total of United States money for the captain of the port at Manila, seven thousand, seven hundred and twelve dollars and fifty cents.

For the chief quartermaster, third district, department of southern Luzon:

For repair of Tribunal Building at San José de Lagonoy, building now used as barracks, one thousand, two hundred and twenty-four dollars and fifty cents.

Total appropriation of United States money, three hundred and sixty-four thousand, five hundred and ninety-two dollars and twenty-four cents.

SEC. 3. The insular treasurer is hereby authorized and directed to pay, in the money by this act provided, the warrants of the Military Governor for the sums so appropriated.

SEC. 4. The public good requiring the speedy enactment of this appropriation bill, the passage of the same is hereby expedited in accordance with section 2 of "An act prescribing the order of procedure by the Commission in the enactment of laws," passed September 26, 1900.

SEC. 5. This act shall take effect on its passage.

Enacted, October 15, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 17th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 24.]

AN ACT establishing a court of first instance for the province of Bohol.

By authority of the President of the United States, be it enacted by the United States Philippine Commission that:

SECTION 1. A court of first instance, of the third class, for the province of Bohol, is hereby established at Tagbilaran, in the island of Bohol, with the same attributes and connection with the supreme court of the Philippine Islands as the courts of first instance in the province of Manila.

SEC. 2. A clerk and the necessary subordinate officials of this court shall be appointed by the judge thereof.

SEC. 3. The duly appointed attorney-general for said province is hereby authorized to perform the duties of registrar of property pending the appointment of such registrar for said province.

SEC. 4. The clerk of this court is hereby authorized to perform the duties of notary public pending the appointment of a notary public for said province.

SEC. 5. For maintenance of said court the following salaries are hereby provided:

For the judge, at the rate of \$2,250.00 a year.

For the attorney-general of the province, at the rate of \$1,800.00 a year;

For an interpreter, at the rate of \$72.00 a year;

For a clerk, at the rate of \$1,200.00 a year;

All payable in Mexican money or its equivalent in United States money.

SEC. 6. Before entering upon the performance of his duties, each of the officers named in the last preceding section shall take the oath of office prescribed in General Orders, No. 20, issued from the office of the United States Military Governor of the Philippine Islands, series of 1899. The oath of office to the judge shall be administered by the commanding officer of the United States forces on the island of Bohol. The judge, upon qualifying, is authorized to administer the oath of office to the other officials named in the preceding section.

SEC. 7. This act shall take effect on its passage.

Enacted, October 17, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 17th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 25.]

AN ACT providing for the appointment and removal of subordinate officers and employees in certain departments and bureaus of the government of the Philippine Islands.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. All appointments to, and removals from, subordinate civil positions authorized by law in the offices of.

- (a) The military secretary;
- (b) The treasurer for the islands;
- (c) The auditor for the islands;
- (d) The collector of customs for the islands;
- (e) The collector of inland revenue for the islands;
- (f) The director-general of posts for the islands;
- (g) The civil-service board;
- (h) The bureau of forestry;
- (i) The bureau of mines;
- (j) The bureau of statistics;
- (k) The general superintendent of public instruction;
- (l) Wardens of penitentiaries and prisons;
- (m) The provost-marshal-general;
- (n) The captain of the port;

shall be made by the respective heads of such offices, subject to the approval of the Military Governor.

SEC. 2. All appointments and removals made under the previous section shall be reported by the Military Governor to the Commission.

SEC. 3. Nothing herein shall be construed to take any of the appointments to be made to positions described in section one out of the provisions of the civil-service act, or to prevent the Commission from revoking action taken under section one, or making appointments to such positions, or from making removals therefrom of its own motion under the general powers conferred upon it by the instructions of the President of the United States.

SEC. 4. This act shall take effect on its passage.

Enacted, October 17, 1900.

UNITED STATES PHILIPPINE COMMISSION,

SECRETARY'S OFFICE,

Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 17th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 26.]

AN ACT authorizing the employment by the Philippine civil-service board of certain employees and empowering the board to fix their salaries within an aggregate limit.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The Philippine civil-service board is hereby authorized to employ, subject to the limitations of the civil-service act and of an

act entitled "An act providing for the appointment and removal of subordinate officers and employees in certain departments and bureaus of the government of the Philippine Islands," passed October 17, 1900, two examiners, one Spanish interpreter, two stenographers and typewriters, two clerks, and two messengers, and to fix their salaries; provided, the aggregate amount of such salaries shall not exceed in one year eight thousand, seven hundred dollars (\$8,700) in the money of the United States.

SEC. 2. Upon the appointment of such employees and the fixing of their salaries the Philippine civil-service board shall certify its action through the Military Governor to the Commission.

SEC. 3. The Philippine civil-service board is authorized to incur such necessary expense for the printing of circulars, pamphlets, examination papers and other documents as the board shall deem proper, subject to the approval of the Military Governor.

SEC. 4. This act shall take effect on its passage.
Enacted, October 17, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE.

Manila, October 30, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 24th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 27.]

AN ACT authorizing an increase of the clerical force in the office of the disbursing quartermaster, civil bureaus.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. Authority is hereby given for the employment of two additional clerks in the office of the disbursing quartermaster, civil bureaus, one at a salary of one hundred dollars per month, and one at a salary of fifty dollars per month, in money of the United States.

SEC. 2. This act shall take effect on its passage.

Enacted, October 24, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, October 31, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 24th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 28.]

AN ACT establishing a court of first instance, for the provinces of La Union and Benguet.

By the authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. A court of first instance of the second class for the provinces of La Union and Benguet is hereby established at San Fernando, in the province of La Union, with the same attributes and connection with the supreme court of the Philippine Islands as the courts of first instance in the province of Manila.

SEC. 2. A clerk and the necessary subordinate officials of this court shall be appointed by the judge thereof.

SEC. 3. The duly appointed attorney-general for said province is hereby authorized to perform the duties of registrar of property pending the appointment of such registrar for said provinces.

SEC. 4. The clerk of this court is hereby authorized to perform the duties of notary public pending the appointment of a notary public for said provinces.

SEC. 5. For maintenance of the court, the following salaries are hereby provided:

For the judge, at the rate of \$1,350.00 a year.

For the attorney-general of the province, at the rate of \$1,125.00 a year.

For an interpreter, at the rate of \$43.20 a year.

For a clerk, at the rate of \$600.00 a year.

All payable in United States money.

SEC. 6. Before entering upon the performance of his duties, each of the officers named in the last preceding section shall take the oath of office prescribed in General Orders, No. 20, issued from the office of the United States Military Governor for the Philippine Islands, series of 1899. The oath of office to the judge may be administered by the commanding officer of the United States forces in the province of La Union, or by a judge of the supreme court of the Philippine Islands. The judge, upon qualifying, is authorized to administer the oath of office to the other officials named in the preceding section.

SEC. 7. This act shall take effect on its passage.

Enacted, October 24, 1900.

UNITED STATES PHILIPPINE COMMISSION,

SECRETARY'S OFFICE,

Manila, October 31, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 24th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSSON, *Secretary.*

[No. 29.]

AN ACT appropriating six hundred and forty-six dollars and eighty-eight cents for the payment of salary and expenses of Frank M. Kiggins, from July 10 to September 20, 1900, inclusive, and the sum of six hundred and twenty dollars and seventy cents for the payment of salary and expenses of Carl C. Plehn, from the 1st day of August to the 30th day of September, 1900, inclusive, both in money of the United States.

By the authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The sum of six hundred and forty-six dollars and eighty-eight cents in money of the United States, is hereby appropriated, out of any funds in the insular treasury not otherwise appropriated, for the purpose of paying Frank M. Kiggins, assistant to the Commission in organization of the civil service, for services rendered and expenses incurred by him under the direction of the Commission preliminary to formally assuming the duties of a member of the civil-service board for the period from July 10 to September 20, 1900, inclusive.

SEC. 2. The sum of six hundred and twenty dollars and seventy cents in money of the United States, is hereby appropriated out of any funds in the insular treasury not otherwise appropriated, for the purpose of paying Carl C. Plehn, statistician, for services rendered and expenses incurred by him under the direction of the Commission for the period from August 1 to September 30, 1900, inclusive.

SEC. 3. The military governor is hereby authorized and directed to draw his warrants in favor of the persons named in the preceding sections, for the respective sums therein set forth, and the insular treasurer is directed to pay the same.

SEC. 4. This act shall take effect on its passage.

Enacted, October 24, 1900.

UNITED STATES PHILIPPINE COMMISSION,

SECRETARY'S OFFICE,

Manila, October 31, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 24th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 30.]

AN ACT authorizing an increase of the salary of the interpreter and translator in the office of the superintendent of police for the city of Manila.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The salary of the chief interpreter and translator in the office of the superintendent of police in the city of Manila is hereby increased to one hundred dollars per month, in money of the United States.

SEC. 2. This act shall take effect on the first day of November, 1900.

Enacted, October 24, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, October 31, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 24th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 31.]

AN ACT fixing the salary of the chief statistician.

By the authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The annual salary of the chief statistician shall be three thousand five hundred (\$3,500) dollars in money of the United States.

SEC. 2. This act shall relate to the first day of October, 1900.

SEC. 3. This act shall take effect on its passage.

Enacted, October 24, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, October 31, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 24th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 32.]

AN ACT making permanent the temporary authority to appoint a property clerk in the department of education contained in an act passed September twelfth, 1900.

By the authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The authority conferred by an act of the United States Philippine Commission, passed September 12, 1900, to appoint temporarily a property clerk in the department of education is hereby made permanent.

SEC. 2. The authority herein conferred shall relate to October 8, last.

SEC. 3. If the person appointed under and by authority of the act of September 12, 1900, shall be reappointed under the present act, he shall have the benefit of the provisions of section 22 of the civil-service act.

SEC. 4. This act shall take effect on its passage.

Enacted, October 24, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, October 31, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 24th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 33.]

AN ACT abolishing the office of the captain of the port at every port in the Philippine Islands, except Manila, and transferring the duties of such office to the proper collector or inspector of customs.

By the authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The office of the captain of the port at every port in the Philippine Islands, except Manila, is hereby abolished.

SEC. 2. The duties now performed by the captain of the port at every port of the Philippine Islands, except Manila, shall be performed at each port of entry by the collector of customs thereof, and at each of the other equipped ports of the islands by the inspector of customs thereof.

SEC. 3. This act shall take effect on its passage.

Enacted, October 24, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, October 31, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 24th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 34.]

AN ACT fixing all salaries paid to officers and employees in the civil service in money of the United States.

By the authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. All salaries paid to officers and employees in the civil service in these islands shall hereafter be paid in money of the United States.

SEC. 2. All general orders and laws now in force fixing such salaries in Mexican money are hereby amended so that the salaries therein provided shall, in each case, be fixed in money of the United States at one-half the number of dollars now expressed in Mexican money.

SEC. 3. This act shall take effect on November 1, 1900.

Enacted, October 24, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, October 31, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 27th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 35.]

AN ACT authorizing the employment of an additional clerk and constable in the office of the justice of the peace at Cebu.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. Authority is hereby given for the employment of an additional clerk at a salary of six dollars per month and of a constable at a salary of four dollars per month, in the money of the United States, in the court of the justice of the peace at Cebu.

SEC. 2. This act will take effect on its passage.

Enacted, October 27, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, November 2, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 29th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 36.]

AN ACT regulating the system of keeping accounts of public revenues and the returns thereof, and repealing certain orders and circulars relating to those subjects.

By the authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The accounts of all collecting, disbursing and accounting officers or agents authorized to receive or disburse money or to audit accounts in these islands, shall be kept, and their reports shall be rendered, in accordance with the requirements of the act passed October 3, 1900 (No. 12), prescribing the method to be adopted by the insular treasurer in keeping and rendering accounts of his receipts and disbursements, and the liability of such officers or agents shall be determined in the same manner as the liability of the insular treasurer under said act.

SEC. 2. All collectors of subports and all other officers or agents authorized to receive money arising from the revenues of the islands, of whatsoever kind, shall pay, in the kinds of moneys in which the payments were received and collected, the full amounts received and collected by them respectively to the treasurer of the islands, and shall render to the auditor monthly accounts therefor within twenty

days after the expiration of the month to which they pertain, accompanied with properly itemized and certified statements of the returns of the revenue collected, showing when, by whom, and on what account paid.

SEC. 3. The first paragraph of the executive order of May 3, 1899, reading:

"The collectors of supports shall deposit all moneys collected by them with the collector of the islands, and a receipt from the collector of the islands shall be taken in duplicate for all such deposits."

And that portion of General Order No. 71, issued from the military governor's office on the 23d day of December, 1899, which reads:

"For the present all money accounts will be kept in Mexican currency."

Also all those portions of General Order No. 54, issued from the office of the Military Governor on April 18, 1900, and of Circular No. 2, issued from the office of the collector of internal revenue of the islands, with the approval of the military governor, on the 16th day of August, 1900, and all other orders or portions of orders which are inconsistent with this act, are hereby repealed.

SEC. 4. This act shall take effect on its passage.

Enacted, October 29, 1900.

UNITED STATES PHILIPPINE COMMISSION,

SECRETARY'S OFFICE,

Manila, November 2, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 29th day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSSON, *Secretary.*

[No. 37.]

AN ACT making appropriations for the payment of vaccinators within the department of northern Luzon, and for the reestablishment of the "average" and "reserve" fund of the Pilots' Association of Manila, and for the payment of salaries and expenses of the Philippine Commission, and for repayment of surtaxes erroneously collected in the Second district, department of northern Luzon.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The following sums are hereby appropriated in money of the United States out of any money in the insular treasury not otherwise appropriated, to be expended for the purposes hereinafter stated:

The sum of five hundred dollars for the payment of the balance due public vaccinators for the month of October, 1900, in the department of the northern Luzon.

The sum of four thousand dollars, for the reestablishment of the "average" and "reserve" fund of the Pilots' Association for the Port of Manila, as authorized and provided in article 40 of the "Regulations for the pilotage and moorage of the river Pasig and bay of Manila, approved by the admiral of the station on the 18th day of October, 1900."

The sum of forty thousand dollars to be paid to Frank A. Branagan, disbursing officer of the United States Philippine Commission, for the payment of salaries and expenses of the Commissioners and employees and miscellaneous expenses of the Commission, for the quarter ending December 31, 1900.

SEC. 2. The sum of three thousand, five hundred and one dollars and fifty-two cents in Mexican money is hereby appropriated out of any money in the insular treasury not otherwise appropriated, for the payment of surtaxes erroneously collected in the various municipalities of the Second district, department of northern Luzon, to such municipalities.

SEC. 3. The insular treasurer is hereby authorized and directed to pay the warrants of the military governor for the sums so appropriated.

SEC. 4. This act shall take effect on its passage.

Enacted, October 29, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, November 2, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 29th day of October, 1900, taken from the original on file in this office

[SEAL.]

A. W. FERGUSSON, *Secretary.*

[No. 38.]

AN ACT appropriating thirteen thousand seven hundred and thirty-four dollars and eighty-three cents for the construction of a suitable vault for the use of the treasurer of the Philippine Islands, and twelve thousand, four hundred and twenty-five dollars for the purchase of a site for a new market in the city of Manila, both in the money of the United States.

By the authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The following sums in money of the United States are hereby appropriated out of any money in the insular treasury not otherwise appropriated, for the purposes and objects hereinafter expressed, namely:

The sum of thirteen thousand, seven hundred and thirty-four dollars and eighty-three cents, to be expended in the construction of a fire and burglar proof vault in the treasury building of the Philippine Islands in the city of Manila.

The sum of twelve thousand, four hundred and twenty-five dollars, to be expended in payment of the purchase money of a suitable site for the construction of an additional market within the city of Manila, and for payment of the other expenses attendant upon such purchase.

SEC. 2. The insular treasurer is hereby authorized and directed to pay the warrants of the military governor for the sums so appropriated.

SEC. 3. This act shall take effect on its passage.

Enacted, October 29, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, November 2, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 31st day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSSON, *Secretary.*

[No. 39.]

AN ACT authorizing and directing the construction of a warehouse on the custom-house grounds, Manila, and the grading and paving of a certain part of those grounds.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The Military Governor is authorized and directed to construct a warehouse on the grounds of the custom-house, Manila, extending along Calle Numancia, Calle de Urbiztondo and Custom-House road, in accordance with the plans entitled—"New bodega for the custom-house at Manila, P. I.," with the accompanying specifications, issued from the office of the assistant chief quartermaster, Manila, October 22, 1900.

SEC. 2. The Military Governor is authorized and directed to grade and pave that part of the custom-house grounds lying between the outer line of the proposed warehouse and the streets along which it extends.

SEC. 3. The work hereinbefore authorized and directed shall be done by contract to be awarded to the lowest responsible bidder, after bids have been invited by public advertisement. Authority is hereby given to the military governor to reject any and all bids; provided, however, that should no satisfactory bid be received in public competition, he is authorized to let the work by private contract, or to do the work by government employees without contract.

SEC. 4. This act shall take effect on its passage.

Enacted, October 31, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, November 2, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 31st day of October, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSSON, *Secretary.*

[No. 40.]

AN ACT prescribing the method to be adopted in making requisitions for funds from the insular treasury, and repealing portions of executive order of May 8, 1899.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. Requisitions for advances from funds in the hands of the treasurer for paying necessary and proper expenses chargeable to the

revenues of the islands shall be made by the respective officers or agents authorized to disburse the same in such form as shall be needed to defray the necessary expenses for three months, and shall be accompanied with itemized estimates of the amounts required, specifying character of expenditures and the funds or heads of the account from which payable. The first requisition under this section shall be for the period of three months, commencing on the first day of January, 1901, and succeeding requisitions shall be in like manner for like succeeding periods.

SEC. 2. All portions of the rules and regulations accompanying executive order of May 8, 1899, inconsistent with this act, are hereby repealed.

SEC. 3. This act shall take effect on its passage.

Enacted, October 31, 1900.

UNITED STATES PHILIPPINE COMMISSION,
 SECRETARY'S OFFICE,
Manila, November 2, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 31st day of October, 1890, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSSON, *Secretary.*

[No. 41.]

AN ACT providing for the employment of special counsel to defend claims against the United States before the board of officers on claims.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. There shall be appointed by the United States Philippine Commission a person learned in the law to act as special counsel for the United States in the defense of claims made against the Government of the United States before the board of officers on claims heretofore appointed by the military governor.

SEC. 2. The employment of such special counsel shall be for six months, from October 15, 1900, to April 15, 1901, and the compensation for such six months' service shall be fifteen hundred dollars (\$1,500), in money of the United States.

SEC. 3. This act shall take effect on its passage.

Enacted, October 31, 1900.

UNITED STATES PHILIPPINE COMMISSION,
 SECRETARY'S OFFICE,
Manila, December 1, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 5th day of November, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSSON, *Secretary.*

[No. 42.]

AN ACT appropriating one hundred thousand seven hundred dollars and thirty cents (\$100,700.30) in Mexican money, and three hundred seventy-seven thousand two hundred and fourteen dollars and seventy-five cents (\$377,214.75) in United States money, for the payment of sundry expenses incurred for the benefit of the insular government for the month of November, 1900, and other designated months.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The following sums in Mexican money are appropriated out of any money in the insular treasury, not otherwise appropriated, for the payment of the current expenses of the insular government for the month of November, 1900, and other designated months, for the purposes and objects hereinafter expressed, viz:

For the chief quartermaster of the United States Army for the division of the Philippines:

For electric lighting and supplies, and rents and repairs to buildings, six thousand eight hundred and thirty-nine dollars and fifty cents (\$6,839.50); for authorized expenditures in the department of the Visayas, the departments of Mindanao and Jolo, for emergency requisitions during the month, for pay of doctors for smallpox patients at Vigan, and for a deficiency in the pay of Macabebe scouts for the months of September and October, seventy-nine thousand seven hundred and seven dollars and fifty cents (\$79,707.50).

Total of Mexican money for the chief quartermaster, eighty-six thousand five hundred forty-seven dollars (\$86,547).

For the purchases of medical supplies for the naval storehouse, Cavite, one hundred forty-six dollars and forty cents (\$146.40).

For the chief signal officer:

For supplies and labor in the construction and maintenance of telegraph, telephone, and cable lines in the Philippine Islands, twenty-five hundred dollars (\$2,500).

For the provost-marshal-general:

For the department of streets, parks, fire, and sanitation, seven hundred and eighty dollars (\$780); for coal for the department of water supply, four thousand dollars (\$4,000).

Total for the provost-marshal-general in Mexican money, forty-seven hundred and eighty dollars (\$4,780).

For the forestry bureau:

For salaries of six assistant foresters, six hundred dollars (\$600); for salaries of thirteen rangers, six hundred and fifty dollars (\$650); for traveling and other expenses incident thereto, four hundred dollars (\$400).

Total for the forestry bureau in Mexican money, sixteen hundred and fifty dollars (\$1,650).

For the bureau of mining:

For the salary of an interpreter and translator from October 1st to October 9th, inclusive, sixty dollars (\$60).

For the provost-marshal of Cavite:

For salaries of janitor, for police for the United States military prison and for incidental expenses, two hundred and seventy-five dollars (\$275).

For the captain of the port at Capiz:

For salaries and wages, eighty-two dollars (\$82).

For the captain of the port at Balanga:

For salary of health officer for October and November and for wages of crew for boarding boat and maintaining harbor lights, one hundred and fifty-five dollars (\$155).

For the captain of the port at Dapitan:

For salaries, wages, and miscellaneous expenses, thirty-seven dollars and fifty cents (\$37.50).

For the captain of the port at Dapitan:

For salaries, wages, and miscellaneous expenses for the month of April, 1900, thirty-seven dollars and fifty cents (\$37.50).

For the captain of the port at Aparri:

For salaries, wages and incidental expenses for the office of the captain of the port, for the Engaño light-house, and for the Linao light-house, seven hundred and thirty-six dollars (\$736.00).

For a refund of an overpayment to the treasurer by W. S. Conrow, collector of internal revenue at Catbalogan, for the period ending June 30, 1900, eight dollars and sixty cents (\$8.60).

For the quartermaster and disbursing officer of the United States military prison at San Isidro:

For salaries, two hundred and seventy-five dollars (\$275); for salaries for December, two hundred and seventy-five dollars (\$275); for subsistence for prisoners for thirty-one days of December, thirty-one hundred and fifteen dollars and fifty cents (\$3,115.50).

Total in Mexican currency for the quartermaster and disbursing officer of San Isidro prison, thirty-six hundred and sixty-five dollars and fifty cents (\$3,665.50).

For J. H. Baker, capt., 46th Inf., U. S. V., to repay overremittance to the treasurer, nineteen dollars and eighty cents (\$19.80).

Total for appropriations in Mexican currency for the month of November and other designated months, one hundred thousand seven hundred dollars and thirty cents (\$100,700.30).

SEC. 2. The following sums in money of the United States are hereby appropriated, out of any money in the insular treasury not otherwise appropriated, for the payment of current expenses of the insular government for the month of November, 1900, and other designated months, for the purposes and objects hereinafter expressed, viz:

For the chief quartermaster for the division of the Philippines:

For regular supplies, for telegrams and telephones, for cleaning of cesspools, for rents and repairs to buildings, for transportation, for miscellaneous expenses of the department of northern Luzon, for miscellaneous expenses of the department of southern Luzon, for expenses of navy gunboats, for expenses of pony corral and of other stables, for expenses of cold-storage plant, for expenses of first reserve hospital, for the purchase of coal and mineral oil and for miscellaneous expenses and to meet emergency requisitions during the month, one hundred and thirty-nine thousand nine hundred and fifty-six dollars and seventy-five cents (\$139,956.75).

For the disbursing quartermaster of civil bureaus:

For authorized salaries for the judges, officers, and employees of the court of first instance at Vigan, the court of justice at Vigan, the court of first instance at Dagupan, the court of justice at Dagupan, the court of first instance at Tuguegarao, the court of justice at Tuguegarao, the court of first instance at Bacolor, the court of justice at Bacolor, the court of first instance at Iloilo, the court of justice at Iloilo, the

court of first instance at Cebu, the court of justice at Cebu, the court of first instance at Cavite, the court of justice at Cavite, the court of first instance at San Isidro, the court of justice at San Isidro, the court of first instance at Laoag, the court of justice at Laoag, the court of first instance at Balanga, the court of justice at Balanga, the sum of four thousand three hundred and thirty dollars and fifty cents (\$4,330.50).

For pay of civil employees in the offices of the following officers:

The board of officers on claims, one hundred and sixty dollars (\$160); chief quartermaster, forty dollars (\$40); assistant to chief quartermaster, two hundred thirty-three dollars and fifty cents (\$233.50); judge-advocate, seven hundred twenty-seven dollars and fifty cents (\$727.50); disbursing quartermaster, four hundred eighty-nine dollars and seventeen cents (\$489.17); adjutant-general, seven hundred and seventy-six dollars and sixty-seven cents (\$776.67); military secretary, eleven hundred and sixteen dollars and sixty-six cents (\$1,116.66); officer in charge of insurgent records, two hundred eighty-eight dollars and thirty-three cents (\$288.33); the supreme court, ten hundred and ninety-four dollars and sixty-seven cents (\$1,094.67); inspector-general, two hundred and forty-one dollars and sixty-seven cents (\$241.67).

For payment of salaries, claims, and miscellaneous bills impossible to itemize, one thousand dollars (\$1,000).

For the pay of laborers for the disbursing quartermaster, two hundred and twenty-four dollars and seventy-two cents (\$224.72); for janitors and four assistant janitors at intendencia building and miscellaneous expenses, forty-one dollars and seventy-five cents (\$41.75); for supplies for issue and miscellaneous expenses impossible to itemize, twenty-five thousand dollars (\$25,000); for rents and repairs of buildings in Manila and elsewhere, four hundred and ninety dollars (\$490).

Total for the disbursing quartermaster of civil bureaus, thirty-six thousand two hundred and fifty-five dollars and fourteen cents (\$36,255.14).

For the medical supply depot of Manila:

For laborers, three hundred dollars (\$300).

For medical supply depot, department of northern Luzon:

For supplies, two hundred and sixty-five dollars (\$265); for eighty vaccinators, at fifteen dollars per month, twelve hundred dollars (\$1,200).

Total for medical supply depot of northern Luzon, fourteen hundred and sixty-five dollars (\$1,465).

For the medical supply depot, southern Luzon:

For eighty vaccinators, at fifteen dollars per month, twelve hundred dollars (\$1,200); for medical supplies for indigent sick natives, fifteen hundred dollars (\$1,500).

Total for medical supply depot of southern Luzon, twenty-seven hundred dollars (\$2,700).

For chief ordnance officer:

For clerical hire, labor, and materials in repairs, four hundred and ninety-eight dollars and seventy-five cents (\$498.75).

For the chief signal officer:

For supplies and labor in the construction and maintenance of telegraph, telephone and cable lines in the Philippine Islands, fifteen hundred and ninety dollars (\$1,590).

For the office of the provost-marshal-general and departments reporting to him:

For department of fire, streets, parks, and sanitation:

For salaries and wages, including herein an increase of thirty dollars a month in the salary of the inspector of the district of Santa Cruz, Quiapo, and San Miguel, fourteen thousand and five dollars and seventy-five cents (\$14,005.75); for horseshoeing, two hundred and twenty-nine dollars and fifty cents (\$229.50); for road material, opening, cleaning and repairing of drains and sewers, repairs to steam tugs, garbage scows and bancas, tools, supplies and other expenses of fire stations, street cleaning and sanitation, thirteen thousand, three hundred and seventy-five dollars (\$13,375); for hire of transportation, seven hundred and five dollars (\$705); for removing night soil from city markets, one hundred dollars (\$100); for constructing new luneta, thirty-five hundred dollars (\$3,500).

Total for the department of fire, streets, parks, and sanitation, thirty-one thousand, nine hundred and fifteen dollars and twenty-five cents (\$31,915.25).

For the department of illuminations and telephones, three thousand, seven hundred and ninety dollars and twenty-seven cents (\$3,790.27).

For the department of municipal records:

For salaries of the judges of all branches of the supreme court, fifteen hundred and twenty dollars and eighty-two cents (\$1,520.82); for salaries of the attorney-general's department, thirteen hundred and six dollars and sixty-two cents (\$1,306.62); for the employees of the civil and criminal branches of the general offices and of the medico-legal department of the supreme court, eleven hundred and thirty-four dollars and fifty cents (\$1,134.50); for the salaries of the judges, justices of the peace, bailiffs, and other employees of the courts of first instance of Binondo, Tondo, Quiapo, Intramuros, of the superior provost court and of the inferior provost court, including herein monthly salaries for new employees whose employment is hereby authorized as follows: Sixteen copyists, four for each justice of the peace in Manila, at ten dollars (\$10) a month each; eight bailiffs, two for each justice of the peace in Manila, at six dollars (\$6) a month each; and two interpreters, at forty-one dollars and sixty-six cents (\$41.66) each, fourteen hundred and seventy-five dollars and ninety-nine cents (\$1,475.99); for the salaries of sixteen copyists, at ten dollars (\$10) a month each, and eight bailiffs, at six dollars (\$6) a month each, for three months, who in courts of the justices of the peace of Manila, though without authority of law, rendered regular public service as such during the months of August, September, and October, six hundred and twenty-four dollars (\$624); for salaries of the collector of taxes and two clerks, one hundred and thirty dollars (\$130); for the salary of clerks and other employees of the department of municipal records, stationery and contingent fund, two hundred and fifty-five dollars (\$255); for the salary of the clerks of the department of prison records, seventy-five dollars (\$75); for the salary of a clerk in the department of receipts and disbursements, one hundred dollars (\$100).

Total for the department of municipal records, five thousand, seven hundred and six dollars and sixty-one cents (\$5,706.61).

For the department of water supply:

For salaries and wages, seventeen hundred and seventy-one dollars (\$1,771); for maintenance, supplies, and office expenses, one hundred and seventy-five dollars (\$175);

Total for the department of water supply, nineteen hundred and forty-six dollars (\$1,946).

For the department of city public works:

For salaries and wages, nine hundred and seven dollars and fifty cents (\$907.50); for office expense, twenty-five dollars (\$25); for widening the Bridge of Spain, four thousand dollars (\$4,000); for repairing city bridges, five hundred dollars (\$500); for repair of Santolan road, one hundred and fifty dollars (\$150); for repairing Luneta sea wall, one thousand dollars (\$1,000); for the Divisoria market, five hundred dollars (\$500); for map of Manila, one hundred dollars (\$100); for the construction of Santa Cruz Bridge, five hundred dollars (\$500); for the maintenance of stock, twenty-five dollars (\$25);

Total for the department of city public works, seven thousand, seven hundred and seven dollars and fifty cents (\$7,707.50).

For the department of cemeteries:

For salaries and wages, rent of keepers' houses, burial of paupers, materials, and miscellaneous expense, three hundred and four dollars and fifty cents (\$304.50).

For the department of police:

For salaries and wages of the officers and privates of the Manila police force, for interpreters and other employes, for medical supplies and contingent fund, for additional detectives, hereby authorized—one detective at one hundred dollars per month, two detectives at twenty-five dollars per month, and one detective at fifteen dollars per month—eleven thousand, two hundred and forty-two dollars and fifty cents (\$11,242.50).

For the department of secret service:

For salaries and wages, pension and miscellaneous expenses, six hundred and seventy-two dollars and fifty cents (\$672.50).

For the department of city schools in Manila:

For salaries and expenses of the city schools of Manila, five thousand, three hundred and sixty-five dollars and eighty-three and one-half cents (\$5,365.83½); for salaries in the nautical school, three hundred and thirty-five dollars and eighty-three cents (\$335.83); for salaries in the superintendent's office, three hundred and seventy-two dollars and fifty cents (\$372.50); for books, stationery, and incidental expenses, including carromata hire for superintendent of city schools, two hundred and twenty dollars (\$220); for books, stationery, and incidental expenses, including carromata hire for superintendent of nautical school, eighty dollars (\$80); for supplies for municipal schools, two hundred and fifty dollars (\$250); for supplies for nautical school, ten dollars (\$10); for thirty-three and one-third per cent (33⅓%) increase in salaries of native Filipino teachers for the month of October, three hundred and seven dollars and thirty-four cents (\$307.34); for additional teacher of English in nautical school, seventy-five dollars (\$75);

Total for department of city schools of Manila, seven thousand and sixteen dollars and fifty and one-half cents (\$7,016.50½).

For department of licenses and municipal revenue:

For salaries and wages of clerks, inspectors, and employes in the license office, including hire of cart, horse, and driver for thirty days, eight hundred and seventy-six dollars (\$876); for salaries of employes in the slaughterhouse, two hundred and seventy-one dollars (\$271); for salaries of employes in the markets, three hundred and twenty-six dol-

lars (\$326); stationery, printing, fuel, and other miscellaneous expense, three hundred and forty-seven dollars and fifty cents (\$347.50).

Total for the department of licenses and municipal revenue, eighteen hundred and twenty dollars and fifty cents (\$1,820.50).

For the department of prisons:

For subsistence of prisoners and lights at Presidio de Manila, thirteen hundred and twenty-nine dollars and thirty-seven cents (\$1,329.37); for salaries of police officers and other employés, one thousand and ten dollars (\$1,010); sundry office supplies, transportation, and miscellaneous repairs, eighty dollars (\$80).

Total for Presidio de Manila, two thousand four hundred and nineteen dollars and thirty-seven cents (\$2,419.37).

For subsistence of prisoners and lights at Cárcel Pública, twelve hundred and twenty-one dollars and twenty-five cents (\$1,221.25); for salaries of clerks and employés, three hundred and sixty-five dollars (\$365); sundry office supplies and miscellaneous repairs, sixty-two dollars (\$62).

Total for Cárcel Pública, sixteen hundred and forty-eight dollars and twenty-five cents (\$1,648.25).

For Bilibid United States military prison:

For repairs and supplies, twenty-four dollars and fifty cents (\$24.50).

Total for department of prisons, four thousand and ninety-two dollars and twelve cents (\$4,092.12).

For the quartermaster's department of the provost guard:

For rent of barracks for civil and military police in Manila, including also the rent of three buildings in Malabon, for the months of October and November, twenty-four hundred and fifty-one dollars and sixteen cents (\$2,451.16); for rent of schoolhouses, including Manila Central Observatory, one thousand and fifty-seven dollars and sixty-seven cents (\$1,057.67); for rent of market sites, twenty-five dollars (\$25); for expenses of city morgue, transportation, rent and petroleum, seventy-two dollars and fifty cents (\$72.50); for miscellaneous rents, operating Manila Central Observatory, pension of Jacinta Brilianti, janitor, service of headquarters of provost-marshal-general, hire of cooks for insurgent prisoners, incidental expenses of headquarters of provost-marshal-general, and advertising, three thousand and five dollars and forty-eight cents (\$3,005.48); for hire of one clerk, purchase of four handcart, rations for civil and military prisoners, rice for indigent citizens, additional rents and minor repairs to civil and military police stations in Manila, two thousand three hundred and thirty-five dollars and eighty-three cents (\$2,335.83);

Total for the department of quartermaster of provost guard, eight thousand, nine hundred and forty-seven dollars and sixty-four cents (\$8,947.64).

For the department of board of health for the city of Manila:

For salaries and wages of employés, including one physician at Malabon, three thousand, two hundred and thirty-eight dollars and fifty cents (\$3,238.50); for transportation, three hundred and sixty dollars (\$360); for medicines for municipal dispensary, preparation of vaccine virus, incidental expenses of veterinary department, incidental expenses of board of health, incidental expenses of chemical department, incidental expenses of bacteriological department, incidental expenses antiplague virus farm, running expenses smallpox hos-

pital, running expenses plague hospital, fuel for plague hospital crematory, fuel for steam disinfecting plant, and printing tags, nine hundred and ninety-seven dollars and fifty cents (\$997.50);

Total for the department of board of health, four thousand, five hundred and ninety-six dollars (\$4,596).

For the department of the board of health for the month of October:

For clothing of R. C. Gibson and John R. Russell, teamsters, and other property destroyed during the quarantine of the quartermaster's corral for plague, by way of reimbursement, forty-nine dollars and fifty cents (\$49.50).

For the office of the adjutant-general of the provost-marshal-general:

For salaries, three hundred and thirty-seven dollars and fifty cents (\$337.50); for fifty orphans at six dollars and fifty cents (\$6.50) each per month at the College of Santa Isabel, and for meals of political prisoners at Anda Street police station, five hundred and seventy-three dollars (\$573); for printing, stationery and advertising, three hundred and eighty-seven dollars and fifty cents (\$387.50); for contingent expenses, one hundred and fifty dollars (\$150).

Total for the office of the adjutant-general of provost-marshal guard, fourteen hundred and forty-eight dollars (\$1,448).

For the department of inspection:

For physician to prisoners of war at Fort Santiago, subsistence and treatment of prisoners of war and others at San Juan de Dios Hospital and for subsistence and treatment of indigent and insane natives and Spaniards at Hospicio de San Jose, twenty-five hundred dollars (\$2,500).

For chief surgeon provost guard:

For pay of laborers, 1st reserve hospital, 2d reserve hospital, hospital No. 3, and convalescent hospital, Corregidor, three hundred and eighty-four dollars (\$384).

Total for provost-marshal-general, ninety-five thousand, fifty-four dollars and seventy-two cents (\$95,054.72).

For the general superintendent of education:

For regular supplies, including school books, blackboards, slating, chalk, pens, ink and books for teachers and department, twenty thousand and one hundred dollars (\$20,100); for salaries of general superintendent of education and employes of his office, nine hundred and fifteen dollars and forty cents (\$915.40); for salaries of English teachers, two thousand dollars (\$2,000); for monthly increase in salary of stenographer from the rate of one thousand dollars per year to twelve hundred dollars per year, sixteen dollars and twenty cents (\$16.20).

Total for general superintendent of education, twenty-three thousand and thirty-one dollars and sixty cents (\$23,031.60).

For the collector of customs of the islands and of the chief port:

For regular supplies, twenty-seven hundred and fifty dollars (\$2,750); incidental expenses, one hundred and two dollars and thirty-eight cents (\$102.38); rents and repairs of buildings, two hundred and ninety-three dollars (\$293); transportation, two hundred and eighty-four dollars (\$284); salaries and wages, including extra inspector hire at Cebu and Siassi, eleven thousand eight hundred and sixty-four dollars (\$11,864); for miscellaneous expenses, five thousand and twenty dollars and fifty cents (\$5,020.50); for refund to Macondray & Co., fifty dollars (\$50); to Holliday, Wise & Co., three dollars and sixty-three cents (\$3.63); to Baer, Senior & Co., twenty-nine dollars and two cents (\$29.02); total of refunds, eighty-two dollars and sixty-five cents (\$82.65).

Total for collector of customs and of the chief port, twenty thousand, three hundred and ninety-six dollars and fifty-three cents (\$20,396.53).

For the collector of internal revenue of the islands:

For regular supplies of the Manila office and the office of the sixth district of northern Luzon, three hundred and nineteen dollars and thirty-six cents (\$319.36); for incidental expenses of the same, thirty-seven dollars and thirty-five cents (\$37.35); for rents and repairs to various buildings used by officials of internal-revenue department in the islands, three hundred and sixty-six dollars and seventy-five cents (\$366.75); for tax refunds, six dollars and twenty-five cents (\$6.25); for official transportation, eighty-one dollars and forty-four cents (\$81.44); for miscellaneous expenses of Manila office and office of the sixth district of northern Luzon, eleven dollars and forty cents (\$11.40); for salaries and wages in all the internal-revenue offices of the islands, thirty-five hundred and forty-nine dollars and forty-one cents (\$3,549.41).

Total for the collector of internal revenue for the month of November, forty-three hundred and seventy-one dollars and ninety-six cents (\$4,371.96).

For the payment of salaries and expenses due for the months of July, August, September, and October by way of deficiency, for rents and repairs, one hundred and thirty dollars and twenty-five cents (\$130.25); for incidental, miscellaneous and transportation expenses, seven dollars and thirteen cents (\$7.13); for salary and wages, including a payment for November wages due in the 4th district of southern Luzon, eight hundred and fifty-six dollars and fifty cents (\$856.50).

Total for deficiency appropriation to the collector of internal revenue for the Philippine Islands, nine hundred and ninety-three dollars and eighty-eight cents (\$993.88).

Grand total for the collector of internal revenue, five thousand, three hundred and sixty-five dollars and eighty-four cents (\$5,365.84).

For the auditor of the Philippine Islands:

For salaries as provided by law, nineteen hundred and eighty-seven dollars and fifty-one cents (\$1,987.51); for printing, seven hundred and fifty dollars (\$750); for the payment of T. F. Morrison, late assistant auditor for posts, for salary from November 1 to November 15, one hundred and twenty-five dollars (\$125); for the payment of W. F. Norris, late legal examiner, for salary from November 1 to November 15, one hundred and twenty-five dollars (\$125); for the amount due W. F. Norris for "per diem" expenses, for the months of September, October, November and December, 1899, three hundred and thirty-five dollars and fifty cents (\$335.50).

Total for the auditor of the islands, thirty-three hundred and twenty-three dollars and one cent (\$3,323.01).

For the treasurer of the Philippine Islands:

For salaries and wages, two hundred and eleven dollars and twenty-five cents (\$211.25).

For the department of office of patents, copyrights and trade-marks:

Salary of one clerk, seventy-five dollars (\$75).

For the forestry bureau:

For incidental expenses, one hundred and twenty-five dollars (\$125); for salaries and wages, eight hundred and sixty-nine dollars and fifty cents (\$869.50).

Total for the bureau of forestry, nine hundred and ninety-four dollars and fifty cents (\$994.50).

For the bureau of mining:

For salaries and wages, three hundred and two dollars, and fifty cents (\$302.50).

For the provost marshal at Cavite:

For subsistence of prisoners, three hundred and thirty-seven dollars and fifty cents (\$337.50).

For the department of posts:

For light, forage and stable sundries, one hundred and sixty dollars (\$160); for incidental and miscellaneous expenses, one hundred and fifteen dollars (\$115); for rents and repairs to buildings, seven hundred and seventy-one dollars and forty cents (\$771.40); for salaries, nine thousand and three hundred and fourteen dollars and eighty-six cents (\$9,314.86); for transportation two hundred dollars (\$200).

Total for the department of posts, ten thousand, five hundred and sixty-one dollars and twenty-six cents (\$10,561.26).

For the captain of the port of Manila:

For office, harbor works and floating property, light-houses and signal stations, machine shops and branch hydrographic office, ten thousand six hundred and fifty dollars (\$10,650); for salaries, office employes, launch crews, in light-houses and signal stations, in machines and repair shops, in dredging and cleaning of channel, in harbor improvements and public works and branch hydrographic office, four thousand nine hundred and seventy-eight dollars and eighty-five cents (\$4,978.85).

Total for the captain of the port at Manila, fifteen thousand six hundred and twenty-eight dollars and eighty-five cents (\$15,628.85).

For the captain of the port at Iloilo:

For salaries on harbor improvement and public works, on the government tug, government launch and government dredger, six hundred and fifty-three dollars and seventy-five cents (\$653.75); for salaries of water-front police, two hundred and ten dollars (\$210); for labor, two hundred and eighty-seven dollars and fifty cents (\$287.50); for supplies and material, five hundred and fifty dollars (\$550); for salaries and wages of office employes, five hundred and two dollars and fifty cents (\$502.50); for office supplies, twelve dollars and a half (\$12.50); for salaries and wages at the light-houses of Iloilo, Siete Pecados, Calabasas, Gigantes, Manigonigo, Luzaran, two hundred and ninety-two dollars and fifty cents (\$292.50); for supplies for light-houses, twenty-five dollars (\$25).

Total for the captain of the port at Iloilo, twenty-five hundred, thirty-three dollars and seventy-five cents (\$2,533.75).

For the captain of the port at Cebu:

For salaries in the office of the captain of the port and for the employes in the light-houses of Macton, Bagacay, Fort San Pedro, Luis and Lapati, and San Nicolas, and for the harbor master in the port of Cebu, two hundred and ninety dollars (\$290); for supplies to lights and light-houses, seventeen dollars and fifty cents (\$17.50); for harbor improvement, five hundred dollars (\$500).

Total for the captain of the port at Cebu, eight hundred and seven dollars and fifty cents (\$807.50).

For the captain of the port at Dagupan:

For salaries and wages, one hundred and twelve dollars and fifty cents (\$112.50).

For the chief paymaster of northern Luzon, for the payment of the

squadron of Philippine cavalry for the months of July, August, September and October, fifteen thousand seven hundred and twelve dollars and eighty cents (\$15,712.80).

Making in all a grand total appropriation for all purposes in money of the United States of three hundred and seventy-seven thousand two hundred and fourteen dollars and seventy-five cents (\$377,214.75).

SEC. 3. The moneys herein appropriated shall be paid out of the treasury upon warrants issued by the auditor and countersigned by the military governor, as provided in the rules and instructions issued by the Secretary of War to carry into effect the Executive orders of the President for the administration of the military government of the Philippines. All acts heretofore passed by the Commission directing the insular treasurer to pay warrants of the Military Governor or any other official shall not be construed as intending to dispense with the requirement of the rules and instructions of the Secretary of War already referred to, but as indicating the officer at whose direction or request such warrant in the form provided in the rules and instructions shall be drawn.

SEC. 4. The public good requiring the speedy enactment of this appropriation bill, the passage of the same is hereby expedited in accordance with section 2 of "An act prescribing the order of procedure by the Commission in the enactment of laws," passed September 26, 1900.

SEC. 5. This act shall take effect on its passage.

Enacted, November 5, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, Dec. 1, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 6th day of November, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSSON, *Secretary.*

[No. 43.]

AN ACT appropriating twenty-five thousand nine hundred and forty dollars (\$25,940) in Mexican money and twelve thousand nine hundred and seventy dollars (\$12,970) in money of the United States.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The sum of twenty-five thousand nine hundred and forty dollars (\$25,940) in Mexican money and the sum of twelve thousand nine hundred and seventy dollars (\$12,970) in money of the United States are hereby appropriated out of any moneys in the insular treasury, not otherwise appropriated, for the payment of the current expenses of the insular government in the department of Mindanao and Jolo, for the purposes and objects hereinafter expressed, viz:

For rents and repairs to buildings, for salaries and subsidies, for pay of crews and purchase of coal, waste, oil, etc., for small gunboats, and for contingencies for the period embraced between November 1 and December 31, 1900.

SEC. 2. The public good requiring the speedy enactment of this appropriation bill, the passage of the same is hereby expedited in accordance with section 2 of "An act prescribing the order of procedure by the Commission in the enactment of laws," passed September 26, 1900.

SEC. 3. This act shall take effect on its passage.

Enacted, November 6, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE.

Manila, December 1, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 12th day of November, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSON, *Secretary.*

[No. 44.]

AN ACT providing for the service of process in provinces where civil courts have not been organized.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. Whenever, in any action, civil or criminal, now pending, or that may hereafter be pending, in any court of the Philippine Islands, it is necessary and proper in accordance with existing law, that an attachment, or execution, or summons, or other process, should be served within any province in which civil courts have not yet been established, or shall not have been established when the occasion may arise for the service of such process, it shall be the duty of the judge, or justice of the peace, before whom the action is pending forthwith to make application in writing to the chief justice of the supreme court, requesting the appointment of a special officer authorized to make service of such process. The application shall state the names and residences of the parties to the action, and the facts, showing the necessity for the application, and the character of the process to be served.

SEC. 2. Upon the receipt of such application it shall be the duty of the chief justice of the supreme court to issue a special commission under the seal of the supreme court, to some discreet and disinterested person, authorizing such person to serve the process named in the application.

SEC. 3. The person so officially authorized, shall make service of the process in the province in which he is authorized to make such service by his commission, in the same manner as though he were a regular officer, proceeding under the action of a court of that province; and shall make return under oath, in writing, of all his proceedings on the process, to the court from which it issued, and shall be in all respects treated as an officer of that court, to the same extent and with the same liabilities as though the process had been one to be served within the province in which the court is situated. He shall at the same time return his commission to the custody of the court from which the process issued.

SEC. 4. This act shall take effect on its passage.

Enacted, November 12, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, December 1, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 12th day of November, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSSON, *Secretary.*

[No. 45.]

AN ACT imposing a customs tax upon exports of Mexican money.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. An export tax of ten per cent is hereby imposed upon all Mexican money hereafter exported from the Philippine Islands, provided that this act shall not apply to any sum not exceeding twenty-five dollars in Mexican money carried by a person departing from the islands.

SEC. 2. All Mexican money exported, or attempted to be exported, from the islands, in violation of this act, shall be forfeited to the Government in the manner hereinafter provided.

SEC. 3. It shall be the duty of the customs officials to seize all Mexican money attempted to be exported without payment of the tax herein imposed, and to hold the same until disposed of by order of court. The collector of customs for the islands shall immediately cause proceedings to be instituted, in a provost court of the city of Manila, organized under General Order, No. 64, of the Headquarters Division of the Philippines, issued August 10, 1900, against the money so seized, to enforce the forfeiture herein prescribed. If the owner of the money is known, and is within the islands, he shall be summoned to show cause in said court why the forfeiture should not be decreed. If he is unknown, or is not within the Philippine Islands, he shall be notified of the pendency of such proceedings by publishing a notice once a week, for three successive weeks, in two daily papers published one in the English language and one in the Spanish language, in the city of Manila, which notice shall state the amount of money seized, the time and place and cause of seizure, and the time and place of the trial. If upon trial it shall be established that the money was being exported, or that the attempt was being made to export it, without payment of the tax herein imposed, a decree of forfeiture shall be entered. If these facts are not established, a decree shall be rendered for the return of the money to its owner.

SEC. 4. Any person exporting, or attempting to export, Mexican money without payment of the tax hereby imposed, shall also be subject to a fine not exceeding one thousand dollars, or to an imprisonment not exceeding six months, or both, in the discretion of the court. All proceedings for the enforcement of the penalties herein prescribed shall be in the provost court mentioned in section three of this act.

SEC. 5. This act shall take effect on its passage.

Enacted, November 12, 1900.

S. Doc. 112—20

UNITED STATES PHILIPPINE COMMISSION,
 SECRETARY'S OFFICE,
Manila, December 1, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 12th day of November, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSSON, *Secretary.*

[No. 46.]

AN ACT authorizing the designation by commanding generals of military departments of civilians to perform ad interim the duties of inspectors of customs and to fix temporary compensation.

By authority of the President of the United States, be it enacted by the United States Philippine Commission that:

SECTION 1. Whenever, through the withdrawal of garrisons from towns of the archipelago open to coasting trade, the office of inspector of customs becomes vacant, commanding generals of military departments are authorized to designate civilians, preferably the chief officers of towns, to perform ad interim the duties of said office.

SEC. 2. Civilian incumbents of said office, designated under section 1 of this act, shall, during the period of their service as such, be compensated therefor at a rate to be fixed by department commanders and not exceeding forty dollars (\$40) gold per month.

SEC. 3. This act shall take effect on its passage.

Enacted, November 12, 1900.

UNITED STATES PHILIPPINE COMMISSION,
 SECRETARY'S OFFICE,
Manila, December 1, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 12th day of November, 1900, taken from the original on file in this office.

[SEAL.]

A. W. FERGUSSON, *Secretary.*

[No. 47.]

AN ACT amending the civil service act by extending the benefits of section 22 of said act to certain persons discharging the duties of civil positions in the military government by detail from the military or naval service of the United States.

By authority of the President of the United States, be it enacted by the United States Philippine Commission that:

SECTION 1. The civil-service act is hereby amended, by adding thereto the following section to be known as section 30:

"SEC. 30. A person who, when the civil-service board informs the Military Governor and the Commission of its readiness to certify an eligible list as provided in section 25, is performing the duties of any of the executive positions described in section 5 by detail from the military or naval service of the United States shall, upon receiving an honorable discharge therefrom, become a civil servant holding the position, the duties of which he has been performing, with the same

immunity from competitive examination as that secured to certain civilian employees by section 22, subject, however, to the proviso of that section."

SEC. 2. This act shall take effect on its passage.

Enacted, November 12, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, December 14, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 22d day of November, 1900, taken from the original on file in this office.

[SEAL.]

RUTHERFORD CORBIN,
Acting Secretary.

[No. 48.]

AN ACT providing for the establishing of local civil governments in the townships of the province of Benguet.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. Whereas the inhabitants of the province of Benguet are at present almost entirely Igorrotes, and a large amount of control and direction by officers appointed by the insular government is deemed best suited to present conditions there, the following simple form of municipal government is adopted, to remain in force until such time as the Igorrotes develop greater capacity for self-government, or the civilized population becomes sufficiently numerous to require new and more liberal provisions. This act shall apply to all the townships of the province, namely, Baguio, Trinidad, Galiano, Itogon, Tublay, Atok, Kapangan, Balakbak, Palina, Ampusungan, Loo, Baguias, Kabayan, Adaoy, Bokod, Daklan, Sablan and Ambuklao.

SEC. 2. Each of these townships shall be divided into barrios. For the purposes of the first election, the barrios as established under Spanish sovereignty shall be recognized; but when local civil government shall have been established in any township, this government shall readjust the division of the township into barrios, definitely fixing the boundaries of these barrios, as provided in section 25. The barrio of the township in which the "tribunal" was formerly situated shall be known as the chief barrio.

SEC. 3. All property vested in any pueblo under its former organization shall continue to be vested in the same township after its organization under this act.

SEC. 4. The government of each township established under this act is hereby vested in a president and a council composed of one representative from each barrio of the township, who shall be designated "councillor."

SEC. 5. In addition to the officers provided for in section 4, there shall be in each township a secretary, a constable, a messenger, and such other nonelective officers and employés as the council shall deem necessary and provide for and the provincial governor shall authorize.

SEC. 6. The salaries of all officers and employés, whether elective or appointive (except councillors, who shall receive no salary), shall be

fixed by the council, subject to the approval of the provincial governor, provided, that no secretary shall receive less than fifteen dollars (\$15) Mexican per month.

SEC. 7. The term of office of the president, secretary, councillors, constable and messenger, shall be for one year, and until their successors shall have been duly chosen; provided, however, that those first elected shall hold office until the first Monday in January, 1902, and until their successors shall have been duly chosen.

SEC. 8. The president and the vice-president shall be elected at large by a plurality vote of the duly qualified electors of each of the several barrios. The secretary, the constable and the messenger shall be appointed by the president, by and with the consent of a majority of all the members of the council.

SEC. 9. A person elected by the people to fill any municipal office shall not be permitted to decline the same, but shall discharge the duties thereof, unless before election he shall claim exemption on the ground: (a) that he has discharged the duties of the same office for two previous terms; or (b) that he is physically disabled. Any person who shall violate the foregoing provision or who shall wilfully misrepresent his physical condition in order to secure exemption from holding municipal office shall, upon conviction in a court of competent jurisdiction, suffer imprisonment for the term of three months.

SEC. 10. The electors exercising the privilege of choosing elective officers shall be male persons eighteen or more years of age, who have had a legal residence in the township in which they exercise the suffrage for a period of six months immediately preceding the election, and who are not citizens or subjects of any foreign power.

SEC. 11. Each elector shall, before voting, take the following affirmation, which shall be administered by the provincial secretary:

ELECTOR'S AFFIRMATION.

I, ———, do solemnly affirm that I am a male resident of the township of ———, in the province of Benguet, and shall have resided therein for the period of six months next preceding the next township election; that at the date of said election I shall be eighteen (18) or more years of age; that I am not a citizen or subject of any foreign power; furthermore, that I recognize and accept the supreme authority of the United States of America and will maintain true faith and allegiance thereto; that I will obey the laws, legal orders and decrees duly promulgated by its authority; and that I impose this obligation voluntarily and without mental reservation or purpose of evasion.

SEC. 12. The following persons shall be disqualified from voting:

1. Those who are delinquent in payment of public taxes assessed subsequently to December 1, 1900.

2. Those who shall have been deprived of the right to vote by sentence of a court of competent jurisdiction since August 13, 1898.

3. Insane or feeble-minded persons.

SEC. 13. The first election in each township shall be held in its chief barrio at the time which the provincial governor shall designate, and the officers elected thereat shall immediately enter upon their duties. Subsequent elections shall be held in the chief barrio on the first Tuesday in December of each year, beginning with 1901, and the officers elected thereat shall enter upon the discharge of their duties on the first Monday of the January following.

SEC. 14. A president, vice-president, councillor, constable or messenger shall be a duly qualified elector of the province, and shall have had a legal residence therein for one year prior to the election

SEC. 15. A secretary shall be able to read, write and speak intelligently the Ilocano and the Spanish or English languages. He need not be a native of the province or a resident therein at the time of his appointment.

SEC. 16. In no case shall there be elected or appointed to a township office ecclesiastics; soldiers in active service; persons receiving salaries from provincial, departmental or government funds; those who are delinquent in the payment of public taxes assessed after December 1, 1900; or contractors for public works within the province.

SEC. 17. The president shall be the chief executive of the township.

1. He shall cause the local ordinances and the orders of the provincial governor to be executed, and shall supervise the discharge of official duties by all subordinates.

2. He shall receive, receipt for and keep in the town house or presidencia all moneys accruing from taxes, license or other fees, and fines.

3. He shall pay on the last day of each month the salaries of all regularly appointed local officers and employés, and, upon an order passed by a majority vote of the council and approved by the provincial governor, shall make such other payments as may be thus duly authorized.

4. He shall render to the council during the first week of each month a true account of all collections and disbursements made during the preceding month. If said account is approved by the council, a true copy of it shall be forwarded to the provincial governor for his information. Should any member or members of the council disapprove of the account, the reasons for such disapproval shall be indorsed thereon by the secretary, and a true copy of the account with the indorsement thereon shall then be forwarded as above provided.

5. He shall be the presiding officer of a court consisting of himself and two councillors to be chosen as hereinafter provided in section 24. The secretary shall be the recording officer of this court, which shall hear and adjudge alleged violations of local ordinances and, after hearing the accused and his witnesses, shall, upon conviction by a majority vote of its members, impose punishment not exceeding a fine of fifteen dollars (\$15.00) Mexican. In case the person convicted is unable or unwilling to pay this fine, he shall satisfy its amount by labor upon public works within the township at the rate of twenty cents Mexican per day, provided that females shall not be compelled to perform work unsuitable for their sex.

6. The president shall receipt for every fine or fee or tax collected by him on official paper, stamped for convenient amounts by the governor of the province and furnished by the governor to the president. The amount stamped on the receipt shall be equal to the amount paid, and the liability of the president shall be determined by the aggregate amounts of the stamps on the official paper furnished to him and not returned.

7. This court shall have no jurisdiction in civil cases, except on the application of the interested parties and upon their making an agreement in writing to accept the award of the court, when it may hear and adjudge any case not involving property exceeding in value the sum of two hundred dollars (\$200.00) Mexican. The judgment shall be recorded by the secretary and shall be final.

8. The members of this court shall receive no compensation for their services.

9. Whenever it shall come to the knowledge of the president that a crime or misdemeanor not within the jurisdiction of the court provided for in section 17, paragraph 5, has been committed within the township, the president shall direct the seizure of the alleged offender, shall make a preliminary investigation into the facts, and, if the guilt of the prisoner shall appear probable, shall order the arresting officer to proceed immediately with the prisoner and the president's report of his investigation to the governor of the province.

10. He shall preside at all meetings of the council; but he shall not vote, except in the case of a tie, when he shall give the casting vote.

11. He shall appoint, by and with the consent of a majority of all the members of the council, the secretary, the constable, the messenger and any other nonelective officers or employés that may be provided for by general law or by duly approved ordinance; and, at any time, for cause, he may suspend any such officer or employé for a period not exceeding ten days, which suspension may be continued for a longer period by the council; and, by and with the consent of a majority of the council, he may discharge any such officer or employé.

12. He shall make all such appointments at the first meeting of the council after his election, except for those offices in which a vacancy may occur during his term. In case the council shall reject any such appointments made by him, he shall submit the names of other persons for appointment at the next regular meeting of the council. In case a vacancy occurs in any of the above-named offices during the term of office of the president, he shall submit an appointment to the council at the first regular meeting after the occurrence of the vacancy.

SEC. 18. The vice-president shall act as substitute for the president in case of the absence of the latter, or of his temporary inability to discharge the duties of his office. Should a permanent vacancy in the office of president occur, the vice-president shall fill the post for the unexpired portion of the term, and a new vice-president shall be chosen by a majority vote of all the members of the council.

SEC. 19. 1. The secretary shall be the recording officer of the court provided for in section 17, paragraph 5, and shall make and keep a record of all its proceedings and findings.

2. He shall be the clerk of the council, whose meetings it shall be his duty to attend. He shall make and keep a journal of all proceedings and acts of the council.

3. He shall keep a civil register for the township and shall record therein all births, marriages and deaths, with their respective dates. Marriages celebrated in accordance with Igorrote customs shall be registered, but it is not hereby intended to change existing law as to lawful marriages.

4. He shall issue a true copy of any single record in the civil register upon application and the presentation by the applicant of official stamped paper bearing stamps to the value of five cents, Mexican, on which the copy of the record shall be inscribed. Stamped paper to be used for such records shall be purchased from the president, who shall be supplied with it for this purpose by the provincial governor.

5. He shall read all communications and orders from the provincial governor to the president and the council at its next regular meeting after they are received, unless the matter treated of be urgent, in which case he shall lay the facts before the president and request him to call a special meeting of the council, at which the communication shall be read.

6. Upon the request of the president, he shall prepare at his dictation and for his signature any official communications which the president may desire to send, or any documents or reports which the president is required to furnish. The secretary shall also prepare for the signature of the president receipts for all taxes, license fees and fines paid in.

7. During the first week of every month he shall forward to the provincial governor true copies of all records made and receipts prepared by him during the preceding month.

8. He shall each year prepare a list of the persons from whom taxes are due, as provided in section 34.

9. On or before the 31st of December of each year, he shall prepare a list of the inhabitants of the township, grouping them by barrios and families. This list shall give the name, sex and approximate age of each person, the amount of taxes paid by him during the current year, and such other details as the provincial governor shall direct. The fact that a man's name has been entered on this list as an inhabitant of a given township shall not restrict his right to transfer his residence to another township.

10. He shall forward to the provincial secretary, on or before the 15th of January of each year, a complete copy of the entries in the civil register for the township during the year ending on the preceding 31st of December, and a true copy of the list provided for in paragraph 9 for the same year, and shall certify the same as true copies of the original records in his office.

11. He shall perform all such other duties as may be imposed by general legislation, or by the direction of the provincial governor, communicated through the president of the township.

SEC. 20. The constable shall wear, as an outward sign of his office, a metal badge, on which shall be stamped the word "constable," and the name of the township in which he holds office. He shall be charged with the duty of maintaining public order and shall have power to call on all law-abiding citizens for assistance to this end. He shall be empowered to make arrests in criminal cases, and shall perform such other duties as may be imposed by general legislation, or by direction of the provincial governor, communicated through the president of the township.

SEC. 21. The messenger shall be charged with the duty of carrying to adjacent townships such communications and other matter as may be entrusted to him for this purpose by the president; and with such other duties as the council may impose by duly approved ordinance.

SEC. 22. There shall be a regular meeting of the council on Saturday of every week. Special meetings may be called by the president, or by any two members of the council, by giving verbal notice to each of the councillors.

SEC. 23. A majority of the council shall constitute a quorum to do business; but a smaller number may adjourn from time to time and may compel the attendance of absentees, under such penalties as may be prescribed by duly approved ordinance, or by order of the provincial governor.

SEC. 24. At the first regular meeting after the election of a new president the council shall pass on his appointments to nonelective offices and shall choose, by a majority vote of all its members, two of the councillors to serve with the president as members of the court provided for in section 17, paragraph 5.

SEC. 25. At the earliest practicable date, the council shall definitely fix the limits of the barrios of the township, prescribing for them such boundaries that the barrios taken collectively shall include the entire territory of the township.

SEC. 26. 1. Each councillor shall inform the people of his barrio as to the acts of the council and as to governmental measures which directly concern them. He shall serve in the council as the representative of the people of his barrio and shall bring their especial needs to the attention of that body.

2. He shall promptly inform the president of any unusual or untoward event occurring in his barrio.

3. He shall notify the people of his barrio of the days on which they should present themselves before the president to pay taxes, and shall himself be present on such occasions to identify them.

SEC. 27. The council shall, by a majority vote of all its members:

1. Fix the salaries of all duly authorized employes, subject to the limitations expressed in section 6.

2. Fill a permanent vacancy in the office of vice-president or of councillor from among persons having the necessary qualifications. A person thus substituted as vice-president or councillor shall serve only for the unexpired portion of the term for which his predecessor was elected and until his successor shall have been chosen.

3. Make appropriations for lawful and necessary expenditures, subject to the approval of the provincial governor.

4. Manage the property of the township.

5. Erect all needful buildings for the use of the township.

6. Provide for the construction and care of the trails and bridges in the chief barrio of the township, and of those necessary to connect it with the several outlying barrios.

7. Provide regulations for the sanitation of the township, and order the removal of nuisances and causes of disease.

8. Regulate the running at large of domestic animals.

9. Adopt such measures to prevent the introduction and spread of diseases as may from time to time be necessary.

10. Prohibit gambling, cock fighting, opium smoking or the sale of opium for smoking.

11. Provide for the taxation of the retail sale, in quantities of less than five gallons, of any intoxicating, fermented, malt or vinous liquors, except the native beverage made from rice and known as "tapuy," and impose such other license fees as may be authorized by general law.

SEC. 28. The council may, by a majority vote of all its members:

1. Order the suspension or removal at any time, for cause, of any nonexecutive officer or employe.

2. Make such provisions for the care of the poor, the sick or of orphans as it may deem necessary.

3. Provide for the establishment and maintenance of schools for primary instruction.

4. Construct and maintain waterworks for the purpose of supplying the inhabitants of the township with water; and provide for the equitable distribution and use of water for purposes of irrigation within the township.

5. Make such ordinances and regulations, not contrary to law, as may be necessary to carry into effect and discharge the powers and duties conferred by this act, and such as shall seem necessary and

proper to provide for the health and safety, promote the prosperity, improve the morals, peace, good order, comfort and convenience of the township and the inhabitants thereof and for the protection of the property therein.

SEC. 29. Until a time to be hereafter determined by the insular government, when the councils of the townships in the province of Benguet shall have gained sufficient knowledge and experience properly to exercise, without intervention, the powers herein conferred, all ordinances and rules passed by them shall be subject to the approval of the provincial governor, and without such approval shall be invalid. Should any township council prove unfit to exercise the powers herein conferred or should it fail to exercise them, the provincial governor shall adopt suitable measures for the carrying out of the provisions of this act.

SEC. 30. Every person eighteen or more years of age who owns property in the province, or who has within his control any owner of property in the province who is less than eighteen years of age shall appear before the president of the township in which such property lies between the first and fifteenth days of January, 1901, and of each year thereafter, and shall declare the value of his property and the value of that of any property owner less than eighteen years of age who is within his control; provided, that, if it shall be inconvenient or impossible for him to appear before the president, he shall make a sworn declaration in writing as to the value of such property and shall cause this statement to be delivered to the president between the dates above fixed. His declaration shall be accepted as true, unless the provincial inspector or some other resident of the province shall question its correctness and bring the matter to the attention of the provincial governor, in which case the provincial governor, the provincial secretary, and the president of the township in which the property lies shall form a board of assessors to determine its value. This board shall be empowered to call and examine witnesses, and, after giving the owner and his witnesses, if any, opportunity to be heard, shall fix the value of the property alleged to be incorrectly valued. Its decisions shall be final.

SEC. 31. Any property owner who fails to declare the value of his property within the period fixed in section 30, or that of the property of any resident of the province less than eighteen years of age within his control, as provided in section 30, shall immediately be warned by the councillor of his barrio that, unless he makes his declaration before the 31st of January, he will be subject to a fine of five dollars (\$5) Mexican; and, should he fail to make the declaration within the period specified, the fine shall be adjudged against him by the court provided for in section 17, paragraph 5, and shall be collected by the president, or, in lieu of the payment thereof, he shall be compelled to work it out on public works within the township at the rate of twenty cents Mexican per day. In the event of his not making his declaration before January 31, the value of his property shall be fixed by the board of assessors provided for in section 30.

SEC. 32. Every resident of the province who does not own real or personal property to the total value of two hundred dollars (\$200) Mexican shall be excused from the payment of any property tax; but, if such resident is a male and eighteen or more years of age, he shall, in lieu thereof, pay an annual tax of one dollar (\$1) Mexican.

SEC. 33. Every resident of the province who is the owner of real or personal property to the value of more than two hundred dollars (\$200) Mexican shall pay as an annual property tax an amount equal to one-half of one per cent. of the value of such property.

SEC. 34. On the basis of the declarations made and of the findings of the board of assessors, if any, the secretary shall prepare, on or before February 15th of each year, a list of the persons from whom a tax is due, with the amount of such tax due from each of them. This list shall be kept open to public inspection in his office. All persons from whom a property tax is due shall be notified by the councillors of their respective barrios to appear before the secretary and learn the amount of such tax, which shall be stated to them verbally by the secretary if they can not read.

SEC. 35. Taxes may be paid between February 15th and July 31st of each year, on a day or days during each month to be fixed by the provincial governor.

SEC. 36. All persons who have not paid their taxes in full on or before the 31st of July of each year shall be deemed delinquent taxpayers, after such delinquency shall have been adjudged, upon due notice to the alleged delinquent, by the court provided for in section 17, paragraph 5. If any taxpayer shall fail to pay the delinquent taxes adjudged against him within twenty-four hours after judgment, he shall be made to satisfy the amount due by labor upon public works within the township at the rate of twenty cents Mexican per day, either performing such work in person or providing a substitute to perform it: Provided, that at any time after he or his substitute shall have begun work he may secure release from obligation to work by payment of the amount of the tax originally due in full.

SEC. 37. Compelling the inhabitants of the province of Benguet to render involuntary service as "polistas," or in any other capacity, is absolutely prohibited, except for the satisfaction of unpaid taxes, license fees or fines, as hereinbefore provided.

SEC. 38. Any person violating the provisions of section 37 shall be guilty of a misdemeanor and shall be punished for each offense by a fine of not more than five hundred dollars (\$500.00) Mexican, or imprisonment for not more than one year, or both, in the discretion of the court.

SEC. 39. On the first day of January of each year, the newly elected presidents shall assemble at the capital of the province to meet and confer with the provincial governor. At this time they shall have the right to elect a popular representative for the province, who shall be chosen by a majority vote of all the presidents present, and who may, or may not, be a resident of the province. The presidents shall also assemble at the capital on the fourth day of July of each year to meet and confer with the provincial governor.

SEC. 40. If the people of the province shall at any time feel themselves to be seriously aggrieved, and shall be unable to obtain relief from the provincial governor, it shall be the duty of the popular representative, either in person or by written communication, to lay their case directly before the chief executive of the insular government. All official communications from the popular representative to the chief executive shall be promptly transmitted by the government officials through whose hands they may pass. Should the popular representative desire to visit Manila, on official business, his journey shall be facilitated by all government officials with whom he may come in

contact. He shall in all cases, except treason, felony and breach of the peace, be privileged from arrest at any time when arrest will interfere with discharging the duties of his office and for any communication or statement which he may make to the chief executive he shall not be held to account by any official, whether civil or military.

SEC. 41. Under no circumstances shall the traveling or other expenses of the popular representative, or any compensation to him, form a charge on the treasuries of the townships or on any one of them or on the provincial treasury.

SEC. 42. Should any dispute arise as to the boundaries of townships, the provincial governor shall hear the persons interested and shall decide the matter in dispute. His decision shall be final.

SEC. 43. Until the present military government shall be replaced by a civil central government of these islands, or until the Commission shall otherwise enact, the Military Governor shall determine what, if any, police force shall be created in the townships of Benguet, in addition to the constables provided for in section 17, paragraph 11, and in section 20. He shall also determine what arms constables, police, other officers or inhabitants of the townships shall be allowed to carry or to have in their possession. In case the Military Governor shall deem it necessary, the police force of any township shall be directly subject to the orders of the Military Governor or his authorized subordinates.

SEC. 44. The provincial governor shall have power to suspend any township official charged with misconduct in office or disloyalty to the United States, and, after proper notice and hearing, to remove or reinstate him. Such suspension, removal or reinstatement shall be reported to the Commission, who may approve or revoke the same. The Military Governor may suspend any township official for disloyalty to the United States, and shall report his action to the Commission, who after hearing the charge on which the suspension was made, shall remove or reinstate such official.

SEC. 45. This act shall take effect upon the establishment of civil government in the province of Benguet.

Enacted, November 22, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, December 14, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 23d day of November, 1900, taken from the original on file in this office.

[SEAL.]

RUTHERFORD CORBIN,
Acting Secretary.

[No. 49.]

AN ACT providing for the establishment of a civil government for the province of Benguet.

By the authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. A civil government is hereby established for the province of Benguet.

SEC. 2. The officers of this government shall be:

(a) A provincial governor, at a salary of fifteen hundred dollars (\$1,500.00) per year;

(b) A provincial secretary, at a salary of one thousand dollars (\$1,000.00) per year; and

(c) A provincial inspector, at a salary of four hundred dollars (\$400.00) per year;

All in money of the United States.

SEC. 3. These officers shall be appointed by the United States Philippine Commission.

SEC. 4. These officers shall reside and have their offices in the township of Baguio, which shall be the capital of the province.

SEC. 5. The governor shall be the chief executive of the province. Until such time as a departmental government shall be established which shall include the province of Benguet, he shall report directly to the chief executive of the insular government. On or before the first day of February of each year he shall make a written statement to such chief executive of the condition of the province.

SEC. 6. He shall make known to the people of his province, by proclamation or communications delivered to the presidents of the several townships, all general laws or governmental orders which concern them, and each president shall deliver all such proclamations and communications to the township secretary, to be by him filed and preserved.

SEC. 7. He shall pass upon every ordinance or act of the several township councils of the province, approving it, should he deem it satisfactory. Should he consider it unsatisfactory, he shall return it to the council, suggesting suitable amendments. The council shall inform him of its action, and he shall then approve the ordinance or act as amended, or modify it, as he may deem necessary.

SEC. 8. Should the council of any township fail to fix the limits of the barrios of the township; to fix the salaries of duly authorized officers and employes; to make appropriations for lawful and necessary township expenditures; to provide for the construction and care of trails and bridges in the chief barrio of the township, and of those necessary to connect it with the outlying barrios; to regulate the sanitation of the township and order the removal of nuisances and causes of disease; to regulate the running at large of domestic animals; to adopt suitable measures to prevent the spread of disease; to prohibit gambling, cock fighting, opium smoking or the sale of opium for smoking; to provide and enforce regulations for the taxation of the retail sale, in quantities of less than five gallons, of any intoxicating, fermented, malt or vinous liquors, except the native beverage made from rice and known as "tapuy;" to impose such other license fees as may be required by general law; to provide for the care of the poor, the sick or of orphans; to provide for the establishment and maintenance of schools for primary instruction; to provide for the construction and maintenance of necessary waterworks for supplying the inhabitants of the township with water, and for insuring the equitable distribution and use of water for the purpose of irrigation in the township; or, in general, to provide for carrying into effect and discharging the powers and duties conferred on them by the "Act providing for the establishment of local civil governments in the townships of the province of Benguet;" or should it fail to enact such

measures as are necessary and proper to provide for the health and safety, promote the prosperity, improve the morals, good order, peace, comfort and convenience of the township and the inhabitants thereof and for the protection of the property therein:

Then the governor shall issue to the president of such township suitable written orders for securing these ends, and these orders shall have the effect of law. But, the constant aim of the governor shall be to aid the people of the several townships of the province to acquire the knowledge and experience necessary for successful local popular government, and his supervision and control shall be confined within the narrowest limits consistent with the requirement that the powers of government in the townships shall be honestly and effectively exercised, and that law and order and individual freedom shall be maintained.

SEC. 9. Until such time as a treasurer shall be appointed for the province, the governor shall act as provincial treasurer, subject to the provisions of general law. He shall audit the monthly accounts of the several townships, and shall cause investigation to be made should he find reason to believe that the finances of any township are dishonestly or negligently administered. Should such investigation reveal ground for action, he shall cause proceedings to be instituted against the offending person or persons.

SEC. 10. He shall have power to suspend any township official charged with misconduct in office or disloyalty to the United States, and, after proper notice and hearing, to remove or reinstate him. Such suspension, removal or reinstatement shall be reported to the commission, who may approve or revoke the same.

SEC. 11. He shall provide the presidents of the several townships with official paper stamped by him for convenient amounts, to be used in receipting for all fines, fees or taxes and in the issuing of true copies of entries in the civil register. He shall hold each president responsible for the aggregate amount of stamps on official paper furnished to him and not returned.

SEC. 12. He shall fix the dates for the first township elections in the several townships, and the day or days during each month from January 15th to July 31st of each year on which the people of the several townships may appear before the presidents to pay their taxes; provided, that the last day so fixed shall be the 31st of July of each year.

SEC. 13. He shall be *ex officio* a justice of the peace in and for the province of Benguet. All the powers and duties of that office, which are now or may hereafter be provided by law, are vested in him. He shall have the power, and it shall be his duty, to issue a warrant for the arrest of a person charged with the commission of any offense. If the offense is one which a justice of the peace may finally try and decide, he shall try and decide it; and if the accused is convicted, he shall impose the proper punishment. If he shall find that the offense is one which can only be tried by a court of the first instance, he shall make such investigation, and shall be governed by the same rules, as judges of the first instance in similar cases. If he finds that there is probable cause for believing the accused to be guilty, he shall bind him over for trial by the judge of the first instance for the provinces of Union and Benguet, and shall at once forward to that official all the records in the case. He is hereby empowered to take bail of such accused person, should the case be bailable by law, in the same manner as a judge of the first instance.

SEC. 14. He shall be the presiding officer of the board of assessors provided for in section 19.

SEC. 15. He shall have the general control of all constabulary and police forces in the province, subject to the supervision of the chief executive of the insular government.

SEC. 16. He shall not leave the province, except in case of emergency, without the consent of the chief executive of the insular government. During such absence the provincial secretary shall act in his stead. In case of the death of the provincial governor, or of his inability to perform his duties through illness, they shall be discharged by the provincial secretary until such time as the Commission shall appoint some person to perform them or the provincial governor shall be able to resume their performance.

SEC. 17. The provincial secretary shall be the custodian of all official records. He shall receive and shall translate for the provincial governor all communications from the several townships in the province, and shall serve as interpreter for the governor, in official proceedings, whenever requested to do so. He shall make written translations of all official orders or communications which the provincial governor may desire to have translated. He shall act as recorder in all judicial and official proceedings presided over by the provincial governor. He shall be a member of the board of assessors provided for in Section 19 and shall serve as its recording officer. He shall receive from the township secretaries the certified copies of the civil registers and other statistical lists required to be kept by them, and shall file the same and make a compilation thereof for the use of the provincial governor, and the same shall be a record, open to the inspection of the public. He shall be *ex officio* a notary public in and for the province. All the powers and duties of that office which are now or may hereafter be provided by law, are vested in him.

SEC. 18. The provincial inspector shall visit and inspect the several townships of the province at stated intervals to be determined by the provincial governor, and on special occasions, whenever the governor may so direct. He shall examine the records and accounts of the several townships, with a view to ascertaining whether the affairs of the townships are being honestly and efficiently administered, and shall report the results of his investigations to the provincial governor. He shall hear all complaints which the inhabitants of any township may desire to make, and shall truthfully and fully report them to the provincial governor. He shall investigate any suspected cases of dishonesty in the declarations, as to the value of their property required of property owners as a basis for taxation, and shall report the result of every such investigation to the provincial governor, together with any instances of serious misconduct on the part of residents of the province which may be brought to his attention. He is hereby empowered to summon witnesses and hear testimony for the promotion of these ends.

SEC. 19. Should any owner of property within the province fail to declare the value of his property before the 31st day of January of any year, or should the provincial inspector or any resident of the province complain that a property owner has made a false declaration as to the value of his property, the provincial governor, the provincial secretary, and the president of the township in which the property is situated shall constitute a board of assessors to determine the value of the property in question. The provincial governor shall be the presiding

officer of this board, and the provincial secretary shall be its recording officer. The board is hereby empowered to call and examine witnesses and to fix the value of property, when such value has not been declared or is alleged to have been incorrectly stated. Its decisions shall be final. The recording officer of the board shall make and keep a record of all its proceedings and findings.

SEC. 20. The chief of the bureau of forestry shall assign a forester to the province, who shall have his office at Baguio. He shall perform the duties prescribed by general law for foresters, except that he shall collect no revenue for firewood used by native residents to cook their food or warm their houses, or for timber actually used by them in the construction of their dwelling houses, or in fencing plots of cultivated ground, but they shall be allowed the necessary timber and firewood for these purposes free of charge; provided, that the usual charges shall be collected on all timber or firewood sold by one person to another or offered for sale.

SEC. 21. This act shall take effect on its passage.

Enacted, November 23, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, December 14, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 23d day of November, 1900, taken from the original on file in this office.

[SEAL.]

RUTHERFORD CORBIN,
Acting Secretary.

[No. 50.]

AN ACT appropriating six hundred dollars (\$600.00) money of the United States to pay the salary of a meteorological observer at Baguio, province of Benguet island of Luzon.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The sum of six hundred dollars (600.00) money of the United States is hereby appropriated, out of any money not otherwise appropriated in the insular treasury for the purpose of paying the salary of a meteorological observer at Baguio, province of Benguet, island of Luzon.

SEC. 2. The sum hereby appropriated shall be paid to Frank A. Branagan, disbursing officer of the Commission, who shall disburse the sum to the observer in monthly instalments of fifty dollars, beginning August 1, 1900.

SEC. 3. This act shall take effect on its passage.

Enacted, November 23, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, December 14, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 23d day of November, 1900, taken from the original on file in this office.

[SEAL.]

RUTHERFORD CORBIN,
Acting Secretary.

[No. 51.]

AN ACT appropriating seven hundred and fifty dollars (\$750) in money of the United States, to be paid to the widow of Eduardo Kintero, chief of police of Tacloban, Leyte, or to the commanding officer of the district for her benefit.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. Whereas, Eduardo Kintero, chief of police of Tacloban, Leyte, was murdered while in the discharge of his official duties on April 21, 1900, because of the efficient administration of his office and his loyalty to the United States; and his untimely death leaves his wife and seven young children in needy circumstances:

The sum of seven hundred and fifty dollars (\$750) in money of the United States is hereby appropriated out of any money in the insular treasury, not otherwise appropriated, to be paid, in the discretion of the Military Governor, either to the widow of Eduardo Kintero or to the commanding officer of the district to be held and expended by him for her benefit.

SEC. 2. This act shall take effect on its passage.

Enacted, November 23, 1900.

UNITED STATES PHILIPPINE COMMISSION,
SECRETARY'S OFFICE,
Manila, December 14, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 23rd day of November, 1900, taken from the original on file in this office.

[SEAL.]

RUTHERFORD CORBIN,
Acting Secretary.

[No. 52.]

AN ACT providing for examinations of banking institutions in the Philippine Islands, and for reports by their officers.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. All persons or corporations engaged in banking in the Philippine Islands, whether doing business as branches of a principal bank in another country or not, shall, on or before the fifteenth day of January, April, July and October in each year, make reports to the treasurer for the islands, which shall conform as nearly as may be to the reports required to be made by national banks of the United States under the laws of the United States and the regulations of the Comptroller of the Currency to such Comptroller, which reports, when made by corporations doing business in the Philippine Islands as branches of a principal bank in another country, shall specifically state all the details of the business conducted during the preceding quarter in the Philippine branch thereof, and shall also report the financial condition of its principal bank at the latest practicable period prior to the date of such reports. They shall also contain such further and other data as may be called for by the treasurer for the islands, either on regular forms or by special inquiries.

SEC. 2. The treasurer for the islands shall prepare a form upon which reports shall be made, and shall furnish copies of such form to every bank in the Philippine Islands.

SEC. 3. It shall be the duty of the treasurer for the islands, or of an authorized deputy by him appointed, personally, at least once in every six months, and at such other times as he may deem expedient, to make an examination of the books of every such bank, of its cash and available assets in the Philippine Islands, and of its general condition and method of doing business, and he shall make report of the same to the Military Governor and to the United States Philippine Commission, and to the Comptroller of the Currency of the United States.

SEC. 4. Every such bank shall afford to the treasurer for the islands, and to his authorized deputy, full opportunity to examine its books, its cash, its available assets, and general condition, at any time when requested so to do by the treasurer.

SEC. 5. Any owner, agent, manager, or other officer in charge of any such bank, who, upon written request by the treasurer, wilfully refuses either to file the report required by this act, on the form required by the treasurer, or to permit the examination required in sections 3 and 4, shall be guilty of a misdemeanor, and shall be punished by a fine of not more than five thousand dollars, or by imprisonment for not more than one year, or both, in the discretion of the court.

SEC. 6. In case of the commission of the offence prescribed in section 5, it shall be the duty of the treasurer forthwith, in writing, to inform the attorney-general of the islands of that fact. Upon receiving such written information from the treasurer, it shall be the duty of the attorney-general not only to institute a prosecution for the enforcement of the penalties provided in section 5, but also to petition the Military Governor to forbid the bank so offending to continue to do a banking business in the Philippine Islands and to enforce the provisions of this act. Upon receiving such petition, it shall be the duty of the Military Governor to investigate the facts set forth in said petition by hearing upon due notice to the bank, and if he finds them to be true, he may forthwith forbid the bank to continue to do a banking business in the islands and direct the treasurer to take charge of the assets of the bank, reduce the same to money, and pay its debts in the order following:

1. Debts due the United States and the government of the Philippine Islands.

2. Debts due to all persons resident or doing business in the Philippine Islands, and

3. All other debts:

In a manner as near as may be to that provided for the liquidation of the affairs of a national bank by a receiver, under the national banking laws of the United States.

SEC. 7. The certificate of the governor, that he finds the facts set forth in such petition to be true, and has directed the treasurer to perform the duties prescribed in section 6, shall be a sufficient warrant and justification for the treasurer in performing all the duties therein prescribed.

SEC. 8. This act shall take effect on its passage.

Enacted, November 23, 1900.

S. Doc. 112—21

UNITED STATES PHILIPPINE COMMISSION,
 SECRETARY'S OFFICE,
Manila, December 14, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 28th day of November, 1900, taken from the original on file in this office.

[SEAL.]

RUTHERFORD CORBIN,
Acting Secretary.

[No. 53.]

AN ACT to prevent discrimination against money of the United States by banking institutions.

By the authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. Every bank of deposit in the Philippine Islands shall accept deposits both in the money of the United States and in Mexican or other local money, and shall honor checks on or repay such deposits in the kind of money in which they are made.

SEC. 2. A wilful violation of the requirements of this act shall subject the manager or officer of the bank causing such violation, or taking part in it, to a punishment for each offense by a fine of not more than five thousand dollars, or by imprisonment for not more than one year, or both, in the discretion of the court.

SEC. 3. Nothing herein contained shall prevent a bank or its officers from declining in good faith to accept deposits so small in amount as to be unprofitable, but a discrimination in that respect between Mexican or other local money and that of the United States shall be deemed to be a violation of the requirements of this act.

SEC. 4. This act shall take effect on its passage.

Enacted, November 28, 1900.

UNITED STATES PHILIPPINE COMMISSION,
 SECRETARY'S OFFICE,
Manila, December 14, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 3d day of December, 1900, taken from the original on file in this office.

[SEAL.]

RUTHERFORD CORBIN,
Acting Secretary.

[No. 54.]

AN ACT appropriating fifty-eight thousand six hundred and twenty-five dollars and sixty-four cents (\$58,625.64) in Mexican money, and five hundred and ninety thousand six hundred and forty-eight dollars and sixty-nine cents (\$590,648.69) in money of the United States, for the payment of sundry expenses incurred for the benefit of the insular government for the month of December, 1900, and other designated months.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The following sums in Mexican money are appropriated out of any money in the insular treasury, not otherwise appropriated, for the payment of the current expenses of the insular government

for the month of December, 1900, and other designated months, for the purposes and objects hereinafter expressed, viz:

For the chief quartermaster of the United States Army for the Division of the Philippines:

For hire of laborers, repairs to buildings, buildings for ice plants at Calamba, Batangas, Legaspi, Nueva Caceres, and Catbalogan, for steam-power plant for water system at Jolo, for funds to meet emergencies during the month and for incidental expenses, forty thousand dollars (\$40,000).

For the provost-marshal-general:

For coal for the department of water supply, four thousand dollars (\$4,000); for rent of land on which the Paco crematory is located, for the months of October, November, and December, 1900, ninety dollars (\$90);

Total for the provost-marshal-general, four thousand and ninety dollars (\$4,090).

For the provost-marshal at Cavite:

For salaries of interpreter, translator and clerk, one hundred and fifty dollars (\$150); for medicines for sick United States military prisoners confined in United States military prison at Cavite for the months of November and December, sixty dollars (\$60);

Total for the provost-marshal at Cavite, two hundred and ten dollars (\$210).

For the forestry bureau:

For carriage hire from October 11th to December 31st, at five dollars (\$5) per day, four hundred and ten dollars (\$410).

For the collector of internal revenue of the islands:

For a refund of surtaxes, erroneously collected in the first and third districts, northern Luzon, first and third districts, southern Luzon, first and second districts, departments of Mindanao and Jolo, and fourth district, department of Visayas, twelve thousand, nine hundred and seventy-five dollars and sixty-four cents (\$12,975.64).

For the district commander at Isabela:

For rent of offices, salaries of interpreters and clerk and for oil for offices for the month of October, one hundred and sixty-five dollars (\$165);

For rents of offices and for salary of interpreter for the month of November, one hundred and twenty-five dollars (\$125);

For rebuilding bridge over Isabela River at Tabuc, and for repairs to reservoir, six hundred and fifty dollars (\$650);

Total for the district commander at Isabela, nine hundred and forty dollars (\$940).

Total for appropriations in Mexican currency for the month of December, 1900, and other designated months, fifty-eight thousand six hundred and twenty-five dollars and sixty-four cents (\$58,625.64).

SEC. 2. The following sums in money of the United States are hereby appropriated out of any money in the insular treasury, not otherwise appropriated, for the payment of current expenses of the insular government for the month of December, 1900, and other designated months, for the purposes and objects hereinafter expressed, viz:

For the chief quartermaster for the Division of the Philippines:

For telegrams and telephones, for the cleaning of cesspools, for rent and repairs to buildings, for alteration of the Cuartel Malate into a military prison, for funds for the department of northern Luzon,

for funds for the department of southern Luzon, for funds for the department of Visayas, for expenses of navy gunboats, of pony corral and other stables, for the purchase of coal and mineral oil, for miscellaneous expenses and to meet emergency requisitions and expenditures during the month, one hundred and seventy-one thousand one hundred and five dollars and twenty-one cents (\$171,105.21); for construction of a warehouse on the grounds of the custom-house, Manila, fifty-seven thousand and five hundred dollars, (\$57,500); for the purchase of two launches, one to be used at Isabela, district of Basilan, and the other at Vigan, island of Luzon, twenty-five thousand dollars (\$25,000);

Total for the chief quartermaster for the Division of the Philippines, two hundred and fifty-three thousand six hundred and five dollars and twenty-one cents (\$253,605.21).

For the disbursing quartermaster of civil bureaus:

For authorized salaries for the judges, officers, and employes of the court of first instance at Vigan, the court of peace at Vigan, the court of first instance at Dagupan, the court of peace at Dagupan, the court of first instance at Tuguegarao, the court of peace at Tuguegarao, the court of first instance at Bacolor, the court of peace at Bacolor, the court of first instance at Iloilo, the court of peace at Iloilo, the court of first instance at Cebu, the court of peace at Cebu, the court of first instance at Cavite, the court of peace at Cavite, the court of first instance at San Isidro, the court of peace at San Isidro, the court of first instance at Laoag, the court of peace at Laoag, the court of first instance at La Union, the court of first instance at Balanga, the court of peace at Balanga, the court of first instance at Bohol, five thousand six hundred and twenty-five dollars and fifteen cents (\$5,625.15).

For pay of civil employes in the offices of the following officers:

The board of officers on claims, two hundred and twenty-nine dollars and ninety-nine cents (\$229.99); the chief quartermaster, forty dollars (\$40); the assistant to the chief quartermaster, three hundred and sixty-five dollars and fifty cents (\$365.50); the judge-advocate, including an increase of twenty dollars in salaries in the department of archives, hereby authorized, five hundred and forty-seven dollars and fifty cents (\$547.50); the military secretary, including an increase in the salary of a stenographer and interpreter from one hundred and twenty-five dollars (\$125) to one hundred and fifty dollars (\$150) per month, hereby authorized, twelve hundred and seventy-four dollars (\$1,274); the officer in charge of insurgent records, four hundred and thirty-two dollars and thirty-two cents (\$432.32); the supreme court, one thousand and ninety-four dollars and sixty-seven cents (\$1,094.67); the inspector-general, two hundred and forty-one dollars and sixty-seven cents (\$241.67); the adjutant-general, one thousand and seventy-six dollars and sixty-seven cents (\$1,076.67); the disbursing quartermaster, nine hundred and sixty-four dollars and seventeen cents (\$964.17);

For laborers, janitors and for washing towels, three hundred and ninety-two dollars and fifteen cents (\$392.15); for supplies for issue and for miscellaneous expenses impossible to itemize, twenty-five thousand dollars (\$25,000); for rents and repairs of buildings, seven hundred and forty dollars (\$740); for the purchase of buoys for the port at Isabela, nine hundred dollar (\$900); for transportation, one thousand dollars (\$1,000.);

Total for the disbursing quartermaster of civil bureaus, thirty-nine thousand and eight hundred and ninety-eight dollars and seventy-nine cents (\$39,898.79).

For the medical supply depot of Manila:

For laborers, three hundred and ten dollars (\$310).

For the medical supply depot, department of northern Luzon:

For the pay of eighty (80) vaccinators, at fifteen dollars (\$15) per month, twelve hundred dollars (\$1,200); for the payment of native physicians, two hundred and fifty-seven dollars and fifty cents (\$257.50); for the purchase of medical supplies and of medicines, three hundred and sixty-five dollars (\$365); for contingent expenses that may be approved by the department commander, six hundred and thirty-five dollars (\$635);

Total for the medical supply depot of northern Luzon, twenty-four hundred and fifty-seven dollars and fifty cents (\$2,457.50).

For the medical supply depot of southern Luzon:

For the pay of thirty (30) vaccinators at fifteen dollars (\$15) per month, four hundred and fifty dollars (\$450); for medical supplies for sick and indigent natives, five hundred dollars (\$500);

Total for the medical supply depot of southern Luzon, nine hundred and fifty dollars (\$950).

For the pathological laboratory:

For the pay of one native laborer from October 15th to December 31st, twelve dollars and sixty-seven cents (\$12.67).

For the chief ordnance officer:

For salaries, three hundred dollars and twenty-five cents (\$300.25); for printing of blanks and for sundry materials and tools that may be acquired in an emergency, one hundred and ninety-five dollars (\$195);

Total for the chief ordnance officer, four hundred and ninety-five dollars and twenty-five cents (\$495.25).

For the chief signal officer:

For the hire of native labor for city and suburban construction and repair of telegraph and telephone lines and for care of central office, power house and shop, and for messengers, and for hire of native employees in cable work, three hundred and fifteen dollars (\$315); for supplies in connection with the construction and maintenance of telegraph, telephone and cable lines in the Philippine Islands, five thousand dollars (\$5,000);

Total for the chief signal officer, five thousand, three hundred and fifteen dollars (\$5,315).

For the office of the provost-marshal-general and departments reporting to him:

For the department of streets, parks, fire and sanitation:

For salaries and wages, nine thousand, one hundred and eight dollars and ten cents (\$9,108.10); for cleaning Matadero and city markets, four hundred and twenty-one dollars and thirty-five cents (\$421.35); for cleaning streets, disposing of garbage, etc., four thousand, two hundred and seventy-seven dollars and twenty-five cents (\$4,277.25); for labor on Calle Rosario and the Escolta, one hundred and fifty dollars (\$150); for operating rock quarry at Binangonan, three hundred and ninety dollars (\$390); for road material, for forage, horseshoeing, etc., for opening, cleaning, and repairing of drains and sewers, for repairs to steam tugs, garbage scows, and bancas, and for incidental expenses, fifteen thousand, two hundred dollars and fifty cents

(\$15,200.50); for the construction of city stables, seven thousand and ninety dollars (\$7,090);

Total for the department of streets, parks, fire and sanitation, thirty-six thousand, six hundred and thirty-seven dollars and twenty cents (\$36,637.20).

For the department of water supply:

For salaries and wages, seventeen hundred and seventy dollars and fifty cents (\$1,770.50); for maintenance, supplies and office expense, one hundred and seventy-five dollars (\$175);

Total for the department of water supply, nineteen hundred and forty-five dollars and fifty cents (\$1,945.50).

For the department of city public works:

For salaries and wages, nine hundred and seven dollars and fifty cents (\$907.50); for office expense, twenty-five dollars (\$25); for final payment for materials used in widening Bridge of Spain, three thousand, four hundred and twenty-three dollars and twenty-one cents (\$3,423.21); for repairing of city bridges, one thousand dollars (\$1,000); for repairing of Santolan road, one hundred and fifty dollars (\$150); for repairing of Luneta sea wall, one thousand dollars (\$1,000); for map of Manila, one hundred dollars (\$100); for the Quinta market, two thousand dollars (\$2,000); for the maintenance of stock, twenty-five dollars (\$25); for putting the roadway of the Bridge of Spain in immediate repair, fourteen hundred and fifty-four dollars and twenty cents (\$1,454.20); for the construction of timber defenses for the Ayala bridge, five thousand eight hundred and seventy-two dollars and fifty cents (\$5,872.50); for payment of estimated cost of construction of Santa Cruz bridge, ninety-seven thousand dollars (\$97,000);

Total for the department of city public works, one hundred and twelve thousand, nine hundred and fifty-seven dollars and forty-one cents (\$112,957.41).

For the department of inspection:

For salary to physician of prisoners of war at Santiago, fifty dollars (\$50); for subsistence and treatment of prisoners of war and others at San Juan de Dios Hospital, two hundred dollars (\$200); for subsistence and treatment of indigent and insane natives and Spaniards at Hospicio de San José, twenty-two hundred and fifty dollars (\$2,250);

Total for the department of inspection, twenty-five hundred dollars (\$2,500).

For the department of prisons:

For subsistence of prisoners and lights at Presidio de Manila, fourteen hundred and thirty-seven dollars and sixty-three cents (\$1,437.63); for salaries of police officers and other employees, nine hundred and thirty-seven dollars and fifty cents (\$937.50); for sundry office supplies, for transportation, for miscellaneous expenses and for printing, one hundred and ten dollars (\$110.00);

Total for the Presidio de Manila, twenty-four hundred and eighty-five dollars and thirteen cents (\$2,485.13).

For subsistence of prisoners and lights at the Carcel Pública, twelve hundred and thirty-seven dollars and twenty-three cents (\$1,237.23); for salaries of clerks and other employees, three hundred and sixty-five dollars (\$365); for sundry office supplies and for miscellaneous repairs, forty-nine dollars and fifty cents (\$49.50);

Total for Carcel Pública, sixteen hundred and fifty-one dollars and seventy-three cents (\$1,651.73).

For Bilibid United States military prison, for repairs and supplies, thirteen dollars and twenty cents (\$13.20).

Total for the department of prisons, forty-one hundred and fifty dollars and six cents (\$4,150.06).

For the department of licenses and municipal revenue:

For salaries and wages, including an increase in the number and in the salaries of employees engaged in collecting the market tax, hereby authorized, for stationery, printing, and for incidental expenses, twenty-four hundred and seventy-nine dollars (\$2,479).

For the department of cemeteries:

For salaries and wages, rent of keeper's houses, burial of paupers, material and miscellaneous expenses, three hundred and four dollars and fifty cents (\$304.50).

For the department of the board of health for the city of Manila:

For salaries and wages, including one physician at Malabon, three thousand two hundred and eighty-eight dollars and fifty cents (\$3,288.50); for transportation, three hundred and seventy-two dollars (\$372); for medicines for municipal dispensary, preparation of vaccine virus, incidental expenses of veterinary department, incidental expenses of board of health, incidental expenses of chemical department, incidental expenses of the bacteriological department, incidental expenses of the antip plague virus farm, running expenses of smallpox hospital and of the plague hospital, fuel for the plague-hospital crematory, fuel for the steam disinfecting plant, for printing tags and for expenses of San Lazaro Leper Hospital, sixteen hundred and seventeen dollars and fifty cents (\$1,617.50); for salaries of the employees of the San Lazaro Hospital for November, one hundred and thirty-eight-dollars (\$138); for reimbursement of clothing destroyed of I. A. Ogden and Bert Greenwood of quartermaster's corral during quarantine of that place for plague, fifty-three dollars and fifty-eight cents (\$53.58);

Total for the department of the board of health for the city of Manila, five thousand, four hundred and sixty-nine dollars and fifty-eight cents (\$5,469.38).

For the department of police:

For salaries and wages of officers and privates of Manila police force, for interpreter and other employees, for medical supplies and for contingent fund, eleven thousand two hundred and seventy-seven dollars and fifty cents (\$11,277.50); for one additional lieutenant of police, three sergeants, three corporals and fifty privates, whose employment is hereby authorized, seven hundred and forty-five dollars (\$745); for a fund for the secret service, hereby authorized, five thousand dollars (\$5,000); for the salary of an interpreter to be used at the San Miguel and Quiapo police stations, at a salary of thirty-seven dollars and fifty cents (\$37.50) per month, hereby authorized, thirty-seven dollars and fifty cents (\$37.50); for the salary of a stenographer and typewriter, at a salary of one hundred dollars (\$100) per month, hereby authorized, one hundred dollars (\$100); for expense authorized but not provided for in the general appropriation bill for November, five dollars (\$5.00);

Total for the department of police, seventeen thousand, one hundred and sixty-five dollars (\$17,165);

For the department of illumination and telephones:

For maintaining street and harbor lights, for maintaining lights in public buildings, residences of general officers, police stations, public

markets, and the Carcel of Bilibid, three thousand five hundred and seventy-eight dollars and sixty-four cents (\$3,578.64); for the rent of telephones, for materials for repairs, etc., to existing insulations, and for increase of the service, two hundred and fifteen dollars and seven cents (\$215.07);

Total for the department of illumination and telephones, three thousand, seven hundred and ninety-three dollars and seventy-one cents (\$3,793.71).

For the department of secret service:

For salaries and wages, for transportation and for miscellaneous expenses seven hundred and sixty-two dollars and fifty cents (\$762.50).

For the office of the adjutant-general of the provost-marshal-general:

For salaries, including an increase in the salary of the interpreter and translator from seventy-five dollars (\$75) to one hundred dollars (\$100), hereby authorized, three hundred and sixty-two dollars and fifty cents (\$362.50); for fifty (50) orphans at six dollars and fifty cents (\$6.50) per month, each, at Santa Isabela College, three hundred and twenty-five dollars (\$325); for meals of political prisoners confined at Anda police station, two hundred and forty-eight dollars (\$248); for stationery, printing and advertising and for contingent expenses seven hundred dollars (\$700);

Total for the office of the adjutant-general of the provost-marshal-general, sixteen hundred and thirty-five dollars and fifty cents (\$1,635.50).

For the department of city schools in Manila:

For salaries and expenses of the city schools in Manila, four thousand, seven hundred and ninety-two dollars and fifty-four cents (\$4,792.54); for salaries in the nautical school, three hundred and eighty-nine dollars and seventeen cents (\$389.17); for salaries in the superintendent's office, three hundred and seventy-two dollars and fifty cents (\$372.50); for books, stationery and incidental expenses, including carromata hire for the superintendent of city schools and the superintendent of the nautical school, three hundred and seventy-five dollars (\$375); for new furniture and repairs to furniture, for lumber for fencing for the girls' municipal school, for repairing boys' school at Quiapo, eleven hundred and eighty-four dollars (\$1,184); for clocks for municipal schools and for oil for floor of nautical school, two hundred and ten dollars (\$210); for salaries of teachers in night schools, eight hundred dollars (\$800); for wages of janitors in municipal schools, twenty-five dollars (\$25);

Total for the department of municipal schools, eight thousand, one hundred and forty-eight dollars and twenty-one cents (\$8,148.21).

For the quartermaster of the department of the provost guard:

For rents of barracks for civil and military police in Manila, including rent of three buildings in Malabon, two thousand, nine hundred and forty-one dollars and sixteen cents (\$2,941.16); for rent of school-houses, including Manila Central Observatory, one thousand and fifty-seven dollars and sixty-seven cents (\$1,057.67); for rent of market sites, twenty-five dollars (\$25); for expenses of city morgue, seventy-four dollars (\$74); for miscellaneous rents, for operating Manila Central Observatory, for pension of Jacinta Brillianti, for forage and shoeing for horses, for hire of four cooks for insurgent prisoners and for incidental expenses, thirty-one hundred and five dollars and ninety-eight cents (\$3,105.98); for rations for civil and military prisoners, for rice for indigent citizens, for minor repairs to civil and military

police stations, for purchase of four lamps for the city schools, twenty-five hundred and thirty-three dollars (\$2,533); for sending Doctor Charles N. Ferrier, veterinarian, to the island of Masbate, for the purpose of investigating the condition of the health of cattle on that island, seventy-three dollars (\$73):

Total for the department of the quartermaster of the provost guard, nine thousand eight hundred and nine dollars and eighty-one cents (\$9,809.81).

For the department of municipal records:

For salaries of the judges of all branches of the supreme court, fifteen hundred and twenty dollars and eighty-two cents (\$1,520.82); for salaries of the attorney-general's department, thirteen hundred and six dollars and sixty-two cents (\$1,306.62); for the employes in the civil and criminal branches of the general offices, of the medico-legal department of the supreme court, eleven hundred and thirty-four dollars and forty cents (\$1,134.40); for the salaries of the judges, justices of the peace, bailiffs and other employes of the district courts of first instance of Binondo, Tondo, Quiapo and Intramuros and of the courts of the justices of the peace at Binondo, Tondo, Quiapo and Intramuros, twenty-three hundred and one dollars and ninety-nine cents (\$2,301.99); for salaries of the superior provost court, including an increase in the salary of Nicholas Arceo from fifty dollars (\$50) to seventy-five dollars (\$75) per month, hereby authorized, two hundred and fifty dollars (\$250); for salaries and expenses in the office of the collector of taxes in the department of municipal records and the department of prison records, four hundred and sixty dollars (\$460);

Total for the department of municipal records six thousand nine hundred and seventy-three dollars and ninety-three cents (\$6,973.93).

For the department of hospitals:

For salaries and wages in the First Reserve Hospital, Second Reserve Hospital, Hospital Number Three and Convalescent Hospital, Corregidor, three hundred and eighty-four dollars (\$384);

Total for the provost-marshal-general: Two hundred and fifteen thousand, one hundred and fifteen dollars and ninety-one cents (\$215,115.91).

For the general superintendent of education:

For salaries of general superintendent of education and employes in his office, nine hundred and fifty-eight dollars and ten cents (\$958.10); for the salary of the superintendent of Manila schools, of English teachers and of assistant or provincial superintendent, four thousand, six hundred and seventy-four dollars and ninety-nine cents (\$4,674.99); for traveling expenses of teachers, four hundred and three dollars and eighty cents (\$403.80);

Total for the general superintendent of education, six thousand and thirty-six dollars and eighty-nine cents (\$6,036.89).

For the collector of customs of the islands and of the chief port:

For regular supplies, twenty-seven hundred and fifty dollars (\$2,750); for incidental expenses, one hundred and five dollars and thirty-eight cents (\$105.38); for rents and repairs to buildings, six hundred and thirty dollars (\$630); for salaries and wages, eleven thousand, eight hundred and eighty-two dollars and fifty cents (\$11,882.50); for transportation, two hundred and ninety-nine dollars (\$299.00); for miscellaneous expenses, nineteen hundred and fifteen dollars and fifty cents (\$1,915.50); for refunds, including a refund of duty paid on a

lost box by Adolfo Richter & Co., amounting to eight dollars and eighty-seven cents (\$8.87), eleven hundred and forty-eight dollars and fifty cents (\$1,148.50); for collector of customs for Cebu, for smoke-stack for the launch "Mercedes," fifty dollars (\$50); for expenses incurred by the captains of port other than Manila, thirty-five hundred dollars (\$3,500); for the captain of the port at Iloilo for repairs to lighthouse Luzaran Point, Guimaras Islands, seven hundred and eighteen dollars and eighty-six cents (\$718.86);

Total for the collector of customs for the islands and of the chief port, twenty-two thousand, nine hundred and ninety-nine dollars and seventy-four cents (\$22,999.74).

For the collector of internal revenue of the islands:

For regular supplies of the Manila office, twenty-seven hundred and sixty-two dollars and twenty-four cents (\$2,762.24); for incidental expenses, thirty-two dollars (\$32); for rents and repairs to various buildings used by officials of the internal-revenue department of the islands, three hundred and forty-nine dollars and eight cents (\$349.08); for tax refunds, two hundred and eighty-nine dollars and fifty-five cents (\$289.55); for transportation, fifty-one dollars and seventeen cents (\$51.17); for miscellaneous expenses, thirty-nine dollars and forty-seven cents (\$39.47); for salaries and wages, three thousand, eight hundred and twenty-one dollars and fifteen cents (\$3,821.15).

Total for the collector of internal revenue for the month of December, seven thousand, three hundred and forty-four dollars and sixty-six cents (\$7,344.66).

For the payment of salaries and expenses for the months of July, August, September, October and November, by way of deficiency, for rent and repairs, two hundred and seventy-seven dollars and ninety-one cents (\$277.91); for transportation and miscellaneous expenses, twenty dollars and fifty-eight cents (\$20.58).

Total for the deficiency appropriations for the collector of internal revenue for the islands, two hundred and ninety-eight dollars and forty-eight cents (\$298.48).

Grand total for the collector of internal revenue for the islands, seven thousand, six hundred and forty-three dollars and fourteen cents (\$7,643.14).

For the auditor of the Philippine Islands:

For salaries as provided by law, including in addition a special increase in the salary of the chief bookkeeper for the period from September 15th to September 30th of twelve dollars and fifty cents (\$12.50), and in the salaries of three examiners for the same period of eight dollars and twenty-five cents (\$8.25) each, for printing for the month of December, and for deficiency amount required to meet bills to November 30th, three thousand, two hundred and ninety-one dollars and forty-two cents (\$3,291.42); for salary of the auditor of the islands from December 1st to December 15th, the date when his resignation takes effect, and for estimated traveling expenses from Manila to Washington, three hundred and sixteen dollars and sixty-six cents (\$316.66).

Total for the auditor of the islands, three thousand, six hundred and eight dollars and eight cents (\$3,608.08).

For the treasurer of the Philippine Islands:

For salaries and wages, two hundred and eleven dollars and twenty-five cents (\$211.25); for purchase of material and employment of labor for cleaning machinery at the mint, one hundred dollars (\$100).

Total for the treasurer of the islands, three hundred and eleven dollars and twenty-five cents (\$311.25).

For the office of patents, copyrights, and trade-marks:

For salary of one clerk, seventy-five dollars (\$75).

For the forestry bureau:

For salaries and wages, fourteen hundred and nineteen dollars and fifty cents (\$1,419.50); for incidental expenses, one hundred and twenty-five dollars (\$125); for traveling and other expenses incident thereto, two hundred dollars (\$200).

Total for the forestry bureau, seventeen hundred and forty-four dollars and fifty cents (\$1,744.50).

For the bureau of mining:

For salaries and wages, three hundred and two dollars and fifty cents (\$302.50).

For the provost-marshal at Cavite:

For subsistence of United States military prisoners, two hundred and thirty-two dollars and fifty cents (\$232.50); for transportation of the provost-marshal while attending to official duties during the months of August, September, October, November and December, fifteen dollars (\$15.00).

Total for the provost-martial at Cavite, two hundred and forty-seven dollars and fifty cents (\$247.50).

For the department of posts:

For regular supplies, one hundred and seventy-five dollars (\$175); for incidental and miscellaneous expenses, one hundred and twenty-five dollars (\$125); for rents and repairs to buildings, nine hundred and three dollars and ninety-three cents (\$903.93); for transportation, two hundred dollars (\$200); for salaries, nine thousand two hundred and five dollars and eighty-nine cents (\$9,205.89).

Total for the department of posts, ten thousand, six hundred and nine dollars and eighty-two cents (\$10,609.82).

For the captain of the port at Manila:

For regular supplies, seventy-four dollars and fifty cents (\$74.50); for salaries of office employes, launch crews, in light-house and signal stations, machine shops and repair shops, in dredging and cleaning of channel, in harbor improvements and public works and branch hydrographic office, four thousand, six hundred and seventy-seven dollars and ninety-five cents (\$4,677.95).

Total for the captain of the port at Manila, four thousand seven hundred and fifty-two dollars and forty-five cents (\$4,752.45).

For the chief paymaster for the department of northern Luzon:

For the payment of the squadron of Philippine cavalry for the months of November and December, ten thousand, nine hundred and fifty-six dollars and forty cents (\$10,956.40).

For the Philippine civil-service board:

For the salary of the chief examiner from September 20th to December 31st, 1900, nine hundred and eighty-one dollars and ninety-five cents (\$981.95); for the salary of the secretary from September 20th to December 31st, 1900, eight hundred and forty-one dollars and sixty-four cents (\$841.64); for the payment of the force for October and November, two hundred and fifty-seven dollars and fifty cents (\$257.50).

Total for the Philippine civil-service board, two thousand and eighty-one dollars and nine cents (\$2,081.09).

For the chief statistician:

For salary for October, November and December, eight hundred and seventy-five dollars (\$875).

For Major I. W. Littell, quartermaster, U. S. Volunteers, chief quartermaster, department of southern Luzon:

To reimburse him for loss through theft by a trusted subordinate, two hundred and twenty dollars (\$220).

Total of appropriations for all purposes in money of the United States five hundred and ninety thousand, six hundred and forty-eight dollars and sixty-nine cents (\$590,648.69).

SEC. 3. The appropriation for the captain of the port at Balanga in the general appropriation act of November, passed November 5, 1900, shall be amended so as to read as an appropriation for the captain of the port at Batangas. The total for the department of municipal records in the same general appropriation act for November shall be amended so as to read six thousand, six hundred and twenty-one dollars and ninety-three cents (\$6,621.93).

SEC. 4. The public good requiring the speedy enactment of this appropriation bill, the passage of the same is hereby expedited in accordance with section 22 of "An act prescribing the order of procedure by the Commission in the enactment of laws," passed September 26, 1900.

SEC. 5. This act shall take effect on its passage.

Enacted, December 3, 1900.

UNITED STATES PHILIPPINE COMMISSION,

SECRETARY'S OFFICE,

Manila, December 14, 1900.

I hereby certify that the annexed is a correct copy of an act passed by the United States Philippine Commission on the 5th day of December, 1900, taken from the original on file in this office.

[SEAL.]

RUTHERFORD CORBIN,

Acting Secretary.

[No. 55.]

AN ACT to provide for wholesome food supplies and to prevent cruelty to animals in transportation.

By authority of the President of the United States, be it enacted by the United States Philippine Commission, that:

SECTION 1. The owners or masters of steam, sailing, or other vessels, carrying or transporting cattle, sheep, swine, or other animals, from one port in the Philippine Islands to another, or from any foreign port to any port within the Philippine Islands, shall carry with them, upon the vessels carrying such animals, sufficient forage and fresh water to provide for the suitable sustenance of such animals during the ordinary period occupied by the vessel in passage from the port of shipment to the port of debarkation, and shall cause such animals to be provided with adequate forage and fresh water at least once in every twenty-four hours from the time that the animals are embarked to the time of their final debarkation.

SEC. 2. The owners or masters of vessels providing forage and water prescribed in section 1, shall have a lien upon the animals so pro-

vided, for the cost of forage and water furnished under the provisions of this act.

SEC. 3. Any owner or master of a vessel, or custodian of such animals, who knowingly and wilfully fails to comply with the provisions of section 1, shall, for every such failure, be liable to pay a penalty of not less than one hundred dollars nor more than five hundred dollars, United States money, for each offence. Prosecutions under this act may be instituted in any court of first instance or any provost court organized in the province or port in which such animals are disembarked.

SEC. 4. It shall be the duty of the collector of customs of the port from which any such animals are shipped, to refuse clearance to any vessel carrying any of the animals aforesaid, which are not provided with sufficient forage and fresh water for compliance with the requirements of section 1; and it shall be the duty of the collector of the port at which such animals are disembarked to ascertain whether the provisions of this act have been complied with, and if they have not, to cause prosecutions at once to be instituted by the promotor fiscal for the enforcement of the penalties herein provided. In ports in which there is no collector of customs, the duties above provided shall be performed by the inspector of customs for such port.

SEC. 5. This act shall take effect on January 1, 1901.

Enacted, December 5, 1900.

O

Ex. J. N. B.

